Lectures
ON
HOSPITALISM,
AND THE CAUSES WHICH DETERMINE THE MORTALITY AFTER AMPUTATIONS.

Delivered in University College Hospital, Jan. 1874,

BY JOHN ERIC ERICHSEN, F.R.C.S.,
SENIOR SURGEON TO THE HOSPITAL, AND HOLME PROFESSOR OF CLINICAL SURGERY IN UNIVERSITY COLLEGE, LONDON.

LECTURE IV.

GENTLEMEN,—In my last lecture I pointed out to you that, and in what manner, "overcrowding" gave rise to septic disease; and I particularly endeavoured to impress upon you the very important fact, which I cannot too strongly urge upon your attention, that it is the nature, and not the number, of cases in a ward that causes that pestilential state of the atmosphere which develops pyæmia and other septic diseases. A ward may be overcrowded with surgical injuries and diseases in which there is no breach of surface—such as simple fractures, chronically inflamed joints, strictures, &c.—without any more serious detriment to the health of its inmates than would result from their inhabiting a room that is habitually too full of people. But the case is widely different when the inmates are the subjects of injuries or operations that occasion suppurating wounds. Then, and under such circumstances, even if the ward be not full, septic disease may be developed; and this will certainly happen, so far as our experience here will lead us to determine a sanitary point with certainty, if the number of suppurating wounds, the majority being severe ones, exceeds one-half of the number of patients the ward is constructed to hold. And, further, when once septic disease is so generated, it will speedily infect the air.

Let me, then, advise you not to be sceptics about the influence of septics.

Now, whether this overcrowding generates septic disease in the first instance by local infection or by blood-poisoning is a point on which men of science are divided. The solution of this question would be altogether beyond the object of these lectures, and consequently need not detain us. Its answer, one way or the other, would in no manner alter the fact with regard to the evil influence of overcrowding. We may then take it as proved by the experience derived from this hospital, that under circumstances of patient, injury or disease, and building, such as we have to deal with here, an invasion of septic surgical disease may be foretold. We are able to determine with accuracy when it is imminent, and with certainty that it will occur according to the number and nature of the open wounds in a state of suppuration that are in a ward at a given time. To be forewarned, in such cases, is truly to be forearmed. As septic disease, and pyæmia more particularly, is the main cause of the present high rate of mortality after operations, more especially amputations, and as the conditions under which it is developed can be determined with accuracy, we have only to guard against the development of these conditions in order to prevent the evolution of the septic cause of mortality, and thus, and in the same ratio, diminish the mortality.

Let us, however, examine this important question a little more in detail, for truly it is one on which I do not wish to dogmatise, but which I should like to present as clearly as possible to you. Now there can be no doubt of this—that if the present rate of mortality after amputations in hospitals be not dependent on those influences to which patients are subjected after the operation has been performed, and which are included under the general term "hospitalism," they must arise from one of the three following conditions—viz.: first, the state of the patient's health before the operation; secondly, the skill with which the operation is performed; and, thirdly, the treatment, constitutional or local, to which the patient is subjected after its performance. Let us briefly examine these.

First. Can the condition of the patient's health, his social status, his occupation, exercise any influence in determining the present high rate of mortality? Upon this point I need say but little, as I have no intention of comparing town and country, hospital and private patients, but to compare the results of one hospital with another in the same town. Now I may take it for granted that the conditions of health are the same in the patients of all the metropolitan hospitals; that there is no difference in health or in social status between patients of a hospital in which the mortality amounts to 18 or 25 per cent. after all amputations, and those of one in which it reaches nearly 50 per cent. Yet these are the differences that are met with in different metropolitan hospitals. We find the same differences existing in the hospitals of Paris; and on reference to Simpson's statistics, it will be found that the hospitals of country towns differ also largely one from another in the rate of operation mortality. Without, therefore, comparing town and country hospitals, we find the utmost possible discrepancy in the results obtained from different institutions in the same town, in which the conditions of the patients must necessarily be as nearly as possible similar in all that respects habits of life, occupation, and resulting constitution.

As to the second condition that may be supposed to lead to this different rate of mortality in different hospitals—namely, any difference of skill that may exist,—it is not to be entertained for a moment. There are, doubtless, many capital operations in surgery—such as lithotomy, the ligature of arteries, herniotomy, &c.—in which it may be supposed that different operators possess varying degrees of skill which might influence the result; but in amputations—the simplest of all the great operations—there can be no difference in this respect; and, indeed, results that are furnished by different hospitals bear no proportion whatever to the known skill and professional ability of the surgeons connected with them; and it is one of the greatest evils of the prevalence of septic disease in a hospital—call it "hospitalism" or not, as you please—that it neutralises the highest surgical skill, and renders abortive every care that can be bestowed upon the patient.

The third possible condition that may influence the result of operations independently of hospitalism is the influence of treatment. This may possibly be somewhat greater, though on this important point we possess as yet no reliable evidence. It is a curious fact that the surgeons of the past generation seem to have been almost entirely ignorant of the existence of septic disease and its influence in modifying injuriously the results of surgical operations. There were, no doubt, scattered hints in the works even of such philosophical surgeons as Brodie and the Bells bearing upon this point; but septic disease was but little regarded, and its more prominent features were scarcely recognised. In Cooper's last edition of his great Surgical Dictionary there is no mention whatever of pyæmia, nor is that disease described in the works of the best authorities of the day. Surgeons thirty-five years ago were chiefly concerned with methods of operating and modes of treatment, and they referred the varying conditions of success and failure to the practice that was adopted in these respects. We find long discussions and controversies upon the comparative advantages of the flap and circular methods of amputation, of immediate and delayed union; but no reference to those more general causes that are now known to override all these comparatively minor considerations of fashioning of flaps, or mode of procuring union of wounds. At this period indeed, the secondary effects of pyæmia and septicæmia in the visceral abscesses and congestions produced were recognised, but the intermediate link of blood-poisoning was but little, if at all, suspected. I can speak with some degree of experience upon this subject, for more than thirty years ago a paper of mine on so-called "congestive pneumonia following surgical operations, injuries, and diseases," was published in the Medico-Chirurgical Transactions, and in that paper, as well as in another on the cause of death after burns, I failed to recognise, and in discussions that took place upon it no reference was made to, the blood-poisoning that undoubtedly led to what we now know to be pyæmic and septicæmic conditions, but which were then looked upon as distinct constitutional diseases, arising from some local irritation in an obscure and inexplicable manner.

But if we go through this past pathological era, and come to more recent times, we shall still find that a great, and, I cannot but think, an undue, importance has been attached to peculiar methods of operation and to particular plans of treatment. Let me speak on this point solely from my own personal experience. The 307 amputation cases that have occurred in my wards have all, I believe, without a single exception, been done by the flap operation. The patients have been subjected to various methods and treatment. In the early periods, up to twenty-five years ago, Liston, and I, acting afterwards on his precepts, generally treated amputation wounds by leaving the flaps open with a piece of wet lint interposed, but otherwise freely exposed to the air for from four to six hours, until all oozing had ceased, and the cut surfaces had become glazed. The flaps were then brought together, a strip of water-dressing laid along the edge of the wound, and an attempt made to procure union by adhesion. We afterwards employed different methods of treatment, generally bringing the flaps together immediately after the operation was completed, and dressing the stump in the operating theatre, sometimes washing the surface with a solution of chloride of zinc, with alcoholised water, or carbolised solution. But whatever method of treatment was adopted the mortality was as nearly as possible the same, ranging, as I have stated in the first lecture, from 23 to 25 per cent. In fact, it is quite certain that no influence whatever has been exercised on the result in my practice by any method of local treatment that has been adopted. Of the antiseptic treatment, I have as yet said nothing positive. It has been tried in some cases in my wards, and with success, but not as yet in a sufficient number for me to come to any conclusion as to its utility in operation wounds. Of its great advantage in chronic abscesses I have seen enough to leave no doubt on my mind. Theoretically the antiseptic treatment appears to me to be perfect; it fulfils all the requirements that can be desired in the management of a wound. It may be equally good in practice, but, as I have already said, this is a point yet to be determined; the essential points in the local treatment of any wound being scrupulous attention to cleanliness, the absence of impurity, so far as freedom from all decomposable matter is concerned, in everything that is brought in contact with it (be it air or instruments, or dressings or surgeons' fingers), and close personal supervision. In all these respects the antiseptic treatment of Prof. Lister and Mr. Callender's method of managing stumps appear to leave nothing to be desired; and if I were to venture an opinion upon a subject which is still *sub judice*, I should say that it is in this that their great merit in practice consists. But we have as yet to learn the real value of antiseptic methods of treatment, and this can only be done by the observation of a very extended series of cases in which these plans of treatment have been employed, and comparing the results thus obtained with an equally extensive set of cases treated by other methods under as nearly as possible the same conditions in the same hospital. It would clearly lead to an incorrect conclusion if we were to compare the mortality resulting from the treatment by antiseptics and by other modes at different seasons of the year or in different years when epidemic influences might be present or absent, or in two hospitals the mortality of which for years past has been so dissimilar as that presented by those contained in Table B as compared with University College or St. Bartholomew's Hospital. The only fair method of comparison is between the practice of one surgeon who uses the antiseptic method with that of another who does not, in the same institution and at the same time. This has never yet been done, or, at least, if done, the results have never been made public, and until we are in possession of such comparative returns, we cannot attach much importance to the publication of isolated cases or even of short runs of success which have, as stated in Lecture I., occurred after almost every method of treatment or of operating to many surgeons.

But if the high rate of mortality at present existing after amputations and many other operations, and dependent on septic diseases, and which differs so widely in different hospitals in London, is not due to the condition of the patient before the operation, to the skill with which the operation is practised, or to the treatment that is adopted, to what are we to refer it? Why, to the last of the four conditions —namely, to the influences to which the patient is subjected after the operation has been performed. It is these influences that give rise to the septic diseases that are so fatal, pyæmia alone being the cause of death in more than one-third of the fatal cases; and if they could be removed, we should lessen our mortality proportionately. In other words, instead of having an average death-rate of about 37 per cent. after amputations, we should bring it down to 24 at most, if only the pyæmic cases could be saved, and considerably under this if the mortality from other septic disease, such as erysipelas, could be done away with.

The differences that exist in the rate of mortality from pyæmia after operations in different hospitals admit possibly of explanation in different ways. Simpson, as is well known, endeavoured to prove that the mortality from septic disease in a hospital increases in the direct proportion of the size of the building. In this I believe he was in error. It is quite possible that if the conditions were equal in all hospitals, size might determine result; but the conditions are so unequal that no legitimate deduction as to mortality can be drawn merely from the consideration of the size of a hospital. If all hospitals were constructed in exactly the same way, if the number of severe injuries and operation cases they contained was in exact proportion to the general number of their inmates, the mere size of the building, or, in other words, the accumulation of numbers under one roof, would in all probability exercise a determinable influence upon the result. But the construction of hospitals is so varied, and the proportion of severe operations and injuries varies so greatly in different institutions, being at least twice as great in proportion to the numbers of patients in some hospitals in London to what it is in others, that no safe deduction can be drawn from mere size of building, or number of inmates. Thus, if we take the four hospitals the statistics of which appear in Table B and University College Hospital, we find that the number of cases of amputation in these hospitals in proportion to the number of beds they contain is as nearly as possible as follows during the years named in the table—namely, in Hospital A there is 1 amputation to every 13 beds; in Hospital B 1 amputation to every 17 beds; in Hospital C 1 amputation to every 10 beds; in Hospital D 1 amputation to every 35 beds; and at University College Hospital 1 amputation to every 6½ beds in the course of the year. In point of fact, the largest hospital in London, St. Bartholomew's, is at present surgically the most healthy. Its reports show a smaller percentage of deaths from septic disease than that of any other institution. At University College Hospital the number of operation cases has always been very large in proportion to the size of the building. We have 150 beds, of which about 75 are surgical. I find by the registrar's returns that we have a yearly average of capital operations—i. e., operations by which life is directly imperilled, as the major amputations, resections of joints, operations for stone, hernia, the removal of large tumours of organs such as the breast, testis, penis, and tongue—amounting to about 80, or more than one for each surgical bed, and this exclusive of all injuries that do not require operation. This is fully double what occurs in other hospitals in London of the same size, and fully as many as occur in some that contain more than double our number of beds. Hence we see the proportionate number of severe cases in regard to the actual number of beds is very large; and yet the mortality from septic disease is, upon the whole, small. In speaking so much of University College Hospital I may have possibly laid myself open to something like a charge of egotism, for we naturally connect the hospital with the surgeon; but I must either refer to the results of the practice in this hospital, to which I have been for nearly a quarter of a century one of the surgeons, and from which I necessarily deduce all my experience of public hospital practice, or I must remain silent.

It is not my intention on the present occasion to go fully into the general question of the construction and the hygiene of hospitals, but there are a few points to which, as they bear on our present subject, I may direct your attention. For, indeed, I cannot but come to the conclusion that in the solution of this question is involved much that relates to the development of septic disease, and increases immensely the evil results which are consequent upon overcrowding, or the simple aggregation of patients under one roof, by rendering the air impure before it enters the wards, and keeping the whole hospital atmosphere in a state of pol-

lution. I cannot but think that there is something radically wrong in the conventional method of constructing ordinary hospitals. I am not at present speaking of those so-called "palatial" hospitals founded by the munificence of the charitable and the pious of a long past age, the revenues of which have augmented by the increased and ever-growing value of property—by the bequests and donations of successive generations of benefactors, until they have rivaled the incomes of dukedoms; but I solely speak of that large class of hospitals, metropolitan and country, varying in size from one hundred to three or four hundred beds, which have no such princely revenues to fall back upon, but which are supported from year to year by the voluntary contributions of the many charitable, pious, and munificent donors who live amongst us. These hospitals having often but slender means at their disposal, or having been constructed with economy in outlay, having been built on a conventional plan from which no architect has as yet departed, they are simply big houses, with basements containing kitchens, lavatories, cellars, and the ordinary offices of a large establishment, with an operating theatre and dead-house more or less closely connected with the main building, with every floor filled with sick and wounded people: on the ground-floor, accidents and operation cases; on the first-floor, probably medical patients; above, chronic, surgical, and medical cases. Who can wonder at the development of pyæmia below, and of erysipelas above? Who would live in an ordinary house thus filled? Who would expect to preserve his health if he ventured to inhabit it? How can the air be pure?—and how can recovery be expected or freedom from septic disease be secured under such conditions as these? Civil hospitals that were built during what may be termed the pre-sanitary age—that is to say, until about a third of a century ago,—were uniformly constructed on this "big-house" plan, being three or four stories high. The evil of this mode of construction is very great. It leads to the upper story, which ought to be the healthiest, being usually the most infected with septic disease; and this notwithstanding its being more easily ventilated than those lower down. This has happened here repeatedly with regard to erysipelas. The upper floor of the main building of our hospital is occupied by the female surgical beds. The cases are much less severe than those in the main accident wards on the ground-floor, the wounds are slighter, the operations less frequent, and of a far less severe character; yet erysipelas occurs to a greater extent amongst the patients on this floor than amongst those on the ground-floor. From July, 1870, to July, 1873, there were 30 cases of erysipelas in those wards, against 24 in the lower wards. But during the whole of this time I had not a single case of pyæmia amongst my female patients in the upper ward. The fact appears to be that the air, as it ascends in the hospital, becomes impregnated more and more with septic matters; and that, erysipelas being infectious, the contagion of that disease is at once carried by the upward current of air to the highest stories, however well ventilated these wards may be, and no doubt the good ventilation in these higher wards tends to lessen the septic disease that would otherwise be more frequent in them.

But not only is the general mode of construction of most hospitals, whether town or provincial, faulty, but the internal arrangements are usually such as not only tend to predispose to those septic diseases that are due directly to contamination of air beyond a certain point of impurity, but also to render it extremely difficult in all cases, and in some impossible, to expel or eradicate such disease when once it has got a foothold in the building. A hospital may thus become contaminated by septic disease, be pyæmia-stricken in fact, beyond the possibility of purification. This is what has occurred in Lincoln County Hospital, which the governors have most nobly decided on demolishing and reconstructing at a vast cost. In the case of this hospital, to which I have no hesitation in alluding, as its condition has been made public in the local papers, in the medical journals, and at the meeting at which its reconstruction was decided upon my name was mentioned in reference to a modified scheme, there have been repeated outbreaks of pyæmia for many years past, and at last the surgeons had been compelled to desist from operating in it, and even to advise patients to be treated at their own homes rather than encounter the perils of the hospital. Mr. Brooke, one of the surgeons, said at the meeting alluded to, which is reported in the *Lincoln Gazette* for Jan. 10th:—"Of late years the interior of the hospital has, at one time or another, been entirely renewed; but still the disease (pyæmia) kept breaking out, and it was the opinion of all the great authorities that it lurked in the very fabric, and that nothing but demolition would remove it." Mr. Lowe, another of the surgeons, spoke in the same strain, and he has told me that although the hospital had become thus pyæmia-stricken, he had never met with a case of that disease out of the hospital in the town itself. I am acquainted with other instances of hospital infection nearly, if not quite, as serious as this; but, as they have not as yet been brought before the public, I refrain from mentioning them. But surely no stronger or more conclusive evidence is needed of the tenacious and ineradicable nature of the pyæmic affection when once it has taken firm hold of a hospital than that which is furnished by the example just given. What name so appropriate as "hospitalism" for a condition of things such as is here described? The town free from infection, the hospital saturated by it, so as to induce its surgeons to recommend their patients not to enter it, to compel them to refrain from operating; and after every attempt that science and humanity could suggest, every hygienic means employed in vain in the attempt to eradicate the poison from the fabric itself, compelling the governors as a last resource to decide on the demolition of the building and its complete reconstruction at a vast expense as the only remedy. The truth is, when once a hospital has become incurably pyæmia-stricken, it is as impossible to disinfect it by any known hygienic means as it would be to disinfect a crumbling wall of the ants that have taken possession of it, or an old cheese of the maggots which it has generated. There is in these extreme cases only one remedy left, that remedy which the governors and staff of the Lincoln County Hospital have so generously, so disinterestedly, and so nobly resolved on—viz., the demolition of the infected fabric and the destruction of its materials. For this last clause must not be forgotten. Just as cattle-plague has to be stamped out by the pole-axe, so has the infection of a pyæmia-stricken hospital no other remedy than the pick.

From the manner in which most hospitals are built, on the model, in fact, of a large dwelling-house, all the wards opening upon corridors or lobbies, which communicate in their turn with the general staircases of the building, and through the medium of these with its basement-floor, with the entrance hall, with the out-patients' department, and frequently by continuous passages with the dead-house; the only air-supply that the wards receive at night, or when the windows are shut, is, in the majority of cases, that which is thus drawn from these corridors, and which, from various causes, is already in a state of impurity, and will thus more readily become contaminated up to the septic point by overcrowding of the wards.

Now let us consider briefly how these causes of pollution of the internal air may be remedied. The three main causes of the impurity of this air inside the hospital corridors and staircases appear to me to be—

Firstly, the effluvia from the kitchens, cellars, and washing-places on the basement-floor. The odours arising from these various sources of impurity, the smell of cooking, washing, &c., are often perceptible in a very marked degree in hospitals. This evil might easily be remedied by removing all these offices into an out-building, as is now generally done in all well-constructed modern houses. The basement-floor might then be converted to useful purposes for the inmates; reading- and recreation-rooms might be established in it for the use of residents and of the patients.

A second cause of impurity in the general air of many hospitals is the out-patient department being under the general roof of the building. This I cannot but consider to be a great evil and a most fertile source of disease amongst the inmates. The fact is that there is too much done in hospitals at the present day. They have not been constructed originally for the amount of work that is now thrown upon them. Thirty years ago the out-patient department was insignificant in comparison to what it now is; dispensaries then did the work that hospitals now undertake in this respect. Not only are there the usual medical and surgical out-patients, but very commonly now out-patient arrangements are made for those affected by a variety of special diseases. Not only has the augmentation in the number of out-patients become so great as to be a

source of demoralisation to the public at large, of loss and injustice to the great mass of general practitioners, of wasteful expenditure and of great embarrassment to the hospitals themselves, but the accumulation of these crowds of diseased and often of infectious people in the entrance halls and the out-patient and casualty rooms has become a source of serious unhealthiness to the inmates of the institution. The out-patient room is commonly situated near one of the entrances to the hospital, and who that has gone into the apartment when crowded with patients, many afflicted alike with dirt and disease, has not been conscious of a heavy and noisome odour tainting the air at its very entry into the hospital, and rendering it, at the very doors of the building, unfitted for contact with the wounded within its walls? I give no opinion here on this question of indiscriminate out-patient relief. Whether an evil or not, it exists, but it should not be suffered to exist under the same roof that covers those who have recently sustained serious injuries and have been subjected to great operations. For this, at all events, there can be no necessity, and we shall in vain attempt to purify the air of our hospitals and to render it free from septic influences within, when we allow it to be polluted, if not infected, at its very entry into the building. Let the out-patient department be removed from the hospital to a detached and altogether separate building, and we should, at all events, remove one source, and a great one, of atmospheric impurity.

The third cause of the impurity of the general as distinguished from the ward air of hospitals is, often, the proximity of the dead-house and post-mortem room to the main building, with which it is in many instances connected by means of a corridor. To this I need do little more than allude, for it must be obvious that it is hopeless to endeavour to prevent the continuation, the occasional severe outbreak, or the spread, of septic disease in the wards, when the air that supplies them from within the building is from time to time contaminated by the diffusion through it of emanations arising from the post-mortem examinations of those who have already perished from these influences. The dead-house, like the out-patient department, should be entirely separate from the hospital, and should have no closed communication with the main building. So also the porters whose duties are connected with it, and the officers whose business it is to make the necropsies, should on no account be permitted to handle the patients or examine or dress the wounds in any surgical case. There is one source of infection, or rather of maintenance of infection, in a hospital that is closely allied in its influence with the dead-house—I mean the "erysipelas ward." That also should never be allowed within the walls and under the roof of the main building, but should be detached and non-communicating. The contagion of erysipelas is undoubted. I gave you, in the last lecture, a striking illustration of it. What but infection, then, can be expected from placing a patient so diseased upon the same floor in the same stream of air communication with others rendered, by open wounds, peculiarly susceptible to its influence? If the erysipelas ward were removed out of the hospital, and had no communication with the main building, its use would be greatly restricted. As now situated, it too often feeds itself.

We know as yet but little that is positive as to the influence of the duration of use, or, in other words, of the age of a hospital, in producing a tendency to the generation of septic diseases in it. It is a question extremely difficult to answer how far the mere age of a building tends to its unhealthiness, whether the building be a modern hospital or a mediæval Italian palazzo. There are so many influences in every building, independently of its mere age, that must modify its sanitary condition, such as the material of which it is constructed, stone, brick, or modern lath and plaster, its site, and the attention that has been bestowed upon its drains, and other hygienic conditions, that we cannot, I think, go much further than this in the answer—namely, that age and neglect will certainly render any building unhealthy. There is one remarkable circumstance connected with age in hospitals, and it is this, that new buildings added on to old hospitals often become more unhealthy than the original building. This happened at one of the Paris hospitals—I believe it was the Necker,—and it has been observed several times in this country.

But to return to that on which I base all my remarks in these lectures—viz., the experience I have derived during the twenty-five years that I have been surgeon to the University College Hospital,—I can say this, that notwithstanding the immensely improved sanitary arrangements that have during that time been introduced and adopted by the unceasing vigilance and devoted attention of the Hospital Committee, the sanitary state of the hospital has just been maintained on the same level that it was a quarter of a century ago. Our amputation mortality is exactly the same now as it was then—viz., about 25 per cent. The effect of greatly improved hygienic arrangements has been to prevent the hospital becoming more unhealthy; they have not succeeded in increasing its salubrity; they appear just to have been able to counteract the ill-effects that would otherwise have arisen from the impregnation of the building with the accumulated septic emanations of a continuous influx of sick and wounded patients.

There are various other points in connexion with hospital hygiene to which I need do little more than direct your attention, as they are matters of general rather than special sanitary arrangement. They are matters, in fact, of common sense and of common experience, but attention to them will undoubtedly greatly influence the development, the prevalence, and the persistence of septic disease in a hospital. They consist mainly in the following points:—1. Rendering all surfaces as little absorbent as possible by parianising the walls and painting the floors. By this means also they become smooth, and less likely to harbour organic dust. 2. The employment of dry-rubbing instead of washing to floors and walls. 3. The frequent purification of the beds. 4. The removal of all unnecessary furniture, such as bed-curtains, carpets, &c., that impede free ventilation, or harbour infection. 5. The removal of the patients' clothes, especially those of cloth and woollen materials, from the wards, and storing them away in an out-building. 6. To compel the nurses to wear dresses that can easily and frequently be washed. 7. It would doubtless be advantageous to furnish the patients with suits of clothing that admit of being cleaned and washed—flannel in winter, cotton in summer. 8. There should always be an abundant supply of carbolised water in the wards for washing purposes. 9. No personal communication, through porters, dressers, or house-surgeons, between the dissecting-room or the dead-house and the wards. 10. The isolation of patients suffering from fetid ulcerations, especially of a cancerous nature. 11. The separation of patients with suppurating wounds from one another by the interposition of unwounded patients. 12. Care not to allow more than one-half of the patients in any given ward to have suppurating wounds at the same time, even if these wounds be trivial; not more, if possible, than one-third, if severe. 13. Instantly to isolate all cases of septic disease. 14. To see that there is a current of air admitted into and passing through the ward, from the outside of the building, by night as well as by day. 15. To close every surgical ward once a year for a month, during which time it might be disinfected and whitewashed. 16. And above all, and under all circumstances, to avoid overcrowding. By attending to simple hygienic rules such as these, which are well known though often neglected, much may be done to diminish the mortality from septic surgical diseases in hospitals, to lessen the violence of their outbreak, to limit the range of their destructiveness when they occur, and, above all, to prevent risk of ineradicable and persistent contamination of the building by septic poison—a condition which experience has shown to be incurable, and only to be met by the destruction of the infected building.

And now, gentlemen, I have done for the present with this subject—the most important probably before the profession. It is alike important to the surgeon and to the public. To the public who use the hospitals there can be no subject of deeper or more vital moment than that those hospitals should be in the highest state of sanitary efficiency. To the surgeon the importance of the prevention of septic disease in hospitals cannot be over-estimated. As matters now stand, the most consummate skill and the most devoted attention are too often alike rendered unavailing by the influence of septic diseases generated within the hospitals themselves, by the operation of causes entirely beyond the surgeon's control—diseases which neutralise the best-directed efforts of his art, and which in no small degree increase the pressure of the heavy responsibility and deep anxiety which, even under the most favourable circumstances, attend its exercise.

ON THE

LYMPHATIC SYSTEM OF THE CORNEA.

BY G. THIN, M.D.

IN 1849, Bowman* relates that in injecting the cornea of the ox with mercury, he found "that the metal coursed rapidly along in perfectly parallel and very delicate lines for a short distance, then diverged at an angle into other similar tubes, which were found to cross the former either above or below. The tubular spaces thus injected appeared to be jointed or broken at varying intervals, and to present what in the nerve-tubes would be termed a varicose condition." He found that the whole cornea was filled with such tubes. That the varicose condition was not due to the tendency of mercury to collect itself in a globular form was proved by the same appearance being observed when the injected mass consisted of size and vermilion. He found it difficult to make similar injections in smaller animals, but, under favourable circumstances, he succeeded in finding a tubular arrangement in the human cornea. Not succeeding in pushing the injected mercury beyond the cornea, he concluded that "probably the corneal tubes do not communicate directly with any other set of vessels or natural channels."

This experiment of Bowman's has arrested the attention of all subsequent investigators into the anatomy of the cornea, and whether "Bowman's tubes" exist in nature, or are the result of the violence done to the texture by the force used in making the injection, has remained until the present time a subject of discussion.

Kölliker† relates in 1854 that he had once found in the conjunctival border of the cornea of a young cat, along with well-marked capillary bloodvessels, pale, wide vessels having a fine structureless wall, which sent projections into the cornea. He saw in the clear fluid in their interior round cells which had exactly the appearance of lymph-corpuscles. Kölliker considered that in this case he had probably seen lymphatic vessels; but, as he never saw a similar appearance again either in the cornea of the cat or of any other animal, he hesitated to express a decided opinion on the matter.

Von Recklinghausen‡ in 1862, in opposition to His, Henle, Langhans, and Teichmann, who maintained that Bowman's tubes were artificially produced, confirmed the observations of Bowman, and further succeeded in injecting from the cornea to the conjunctiva. His efforts to find an independent wall in the canalicular system of the cornea had a negative result, and he came to the conclusion that it is "improbable that in the cornea-kanälchen in general a special membrane exists." For the system of canals he introduced as a more precise designation the term "saft-kanälchen," which has passed into very general use.

Later, in Virchow's Archives,§ he urged the necessity of assuming the existence of a system of canals to account for the movements of the wandering cells observed in the fresh cornea, and showed that these canals must be in direct connexion with the fixed cornea-corpuscles first observed by Toynbee.

To show how little von Recklinghausen is inclined to associate these canals with the lymphatic system, I have only to refer to his treatise on the lymphatic vessels in Stricker's "Handbuch," Band i., p. 215, where he states that it is distinctive of lymphatic vessels that they occur always simultaneously with bloodvessels, and that "textures in which there are no bloodvessels have also no special lymph-vessels (cornea, vitreous humour, epithelium)."

C. F. Müller‖ held that neither the cells of the cornea nor the lacunæ in which they lie possess a membrane, and that the latter differ in no respect from the ordinary inter-fibrillary spaces, except in that they harbour the cells, and so when injected they acquire the appearance of a canal system.

His (I quote from Leber),* by macerating the cornea in mineral acids, obtained a connected network, and, therefore, held that he had proved the existence of a membrane. Leber† proceeded also by a system of maceration, and found tubes which he held to be identical with Bowman's. He leaves it undecided if the tubes are to be themselves considered as anastomosing cells or as harbouring cells. Lawdowsky‡ agrees with Leber that the canalicular system can be separated, and that the existence of a special membrane of "some thickness" is thus proved. He denies the existence of any cells or formed elements in connexion with it, attributing appearances simulating these to excessive colouring in silver.

Rollett§ states that the general result of all "*einstich*" injections into the cornea is a springing of the texture. "From this method," he remarks, "it has been erroneously concluded that long-stretching, straight, tubular hollow spaces, corneal tubes (Bowman's), interlamellary cavities (Henle), or a net-shaped canal system (von Recklinghausen, C. F. Müller, Schweigger-Seidel), exist in the fresh cornea."

I have frequently observed in sections of the cornea treated in the usual way by nitrate of silver and chloride of gold, singly and combined, appearances that I could only explain by supposing the existence of epithelium-lined lymphatic vessels running through the structure. Recently, in re-examining preparations that had been laid aside for a time, I found that in some of them these appearances had developed to an extent and precision that place the existence of lymphatic vessels in the cornea beyond doubt.

Figs. 1 and 2 are drawn from two of these preparations. I have succeeded since in obtaining preparations equally characteristic in sections of the cornea within a few days after they were excised and subjected to the influence of the metallic solutions.

Fig. 1 represents the largest lymphatic vessel I have seen, and from its size shows well the specially distinctive epithelium of the lymphatics. Fig. 2 shows smaller vessels joining to form a larger trunk, and their relative position to the substantia propria of the cornea. They are from the rabbit.

Those who are familiar with the appearances presented by the lymphatics as demonstrated by the use of nitrate of silver in the diaphragm of the rabbit or guinea-pig, will at once identify these drawings as representing similar anatomical structures. Those who are not familiar with these appearances can satisfy themselves that they are the same by referring to the woodcuts in the works of von Recklinghausen and Klein.

A reference to Bowman's description of the corneal tubes shows how accurately, even to the varicosities, it applies to the lymphatics, and I cannot help coming to the conclusion that the mercury in his injections took the course offering least resistance, that along the lymphatic vessels.

The clear spaces in Figures 1 and 2 correspond to the lacunæ of the cornea, in which the cornea corpuscles or cells lie; and it will be observed that they communicate directly with each other, and, through those that are adjacent to the vessel, with the lymphatic system. The dark colour of the lines between the epithelial cells being due to the action of the nitrate of silver on the connecting substance, if the silver solution has penetrated only as far as the vessels, the epithelium of the vessels only is seen, as in Figures 1 and 2. But if the nitrate of silver is brought into contact with the free surface of the lacunæ, it is found that the epithelium is coextensive with the whole canalicular system. To favour the penetration of the silver solution I recommend the following method:—The anterior epithelium should be scraped off the cornea immediately after the death of the animal. The cornea is then cut out, and divided into pieces, which are put into a half per cent. solution of nitrate of silver. The pieces should be taken out at intervals, one at a time, the first one being taken out after ten or fifteen minutes. Several of the pieces should, after having the white flaky coagulum washed gently off with distilled water, be put in a half per cent. solution of chloride of gold, in which they should again be allowed to remain for different periods varying from fifteen minutes to an hour. They are then allowed to colour in the light in the usual way. Sections from the different pieces so treated

* Lectures, &c. London, 1849.
† Mikr. Anatomie, Band ii., Abth. ii., s. 621. Leipzig, 1854.
‡ Die Lymphgefässe. Berlin, 1862.
§ Virchow's Archiv, Band xxviii., s. 157.
‖ Virchow's Archiv, Band xli., s. 136.

* Monatsblatt für Augenheilkunde, s. 17. 1866. † Loc. cit.
‡ Max Schultze's Archiv, 1872.
§ Stricker's Handbuch, art. Cornea.

should show all the varieties of the gold and silver tinting.

Figure 3 has been drawn from a preparation obtained by this method, and shows the direct continuation of the epithelium of a lymphatic vessel into that lining the lacunæ or corneal spaces.

In affirming the existence of an epithelium in the lacunæ, I rest my opinion firstly on the appearance of the fine lines which are seen traversing the spaces (the "sinuous endothelium" considered by Klein as characteristic of the lymphatic system), and, secondly, on its being anatomically continuous with what I venture to think no one will doubt is epithelium in the lymphatic vessel.

In studying the relations of the nerves to the lymphatic trunks, I have been repeatedly able to trace the epithelial markings in the vessel into the spaces on each side.

In regard to the relation between the appearances presented in Fig. 3 and the known general form of the lymphatic epithelium, it is necessary to bear in mind the relative size of the space and the epithelial cell, and that as the section represents only one surface of the space, only segments of the lining cells can, as a rule, be seen. As the assigning to these silver-coloured lines the interpretation of the points of contact of contiguous epithelial cells has an important bearing on the anatomy of the whole lymphatic system,* it is fitting that I should examine what has been already observed in this direction.

As far as I know, Hoyer† and Schweigger-Seidel‡ are the only observers who have figured dark lines in a clear field in drawings illustrating preparations from cornea treated with silver, and I believe the lines they figure to be the same as those which I interpret as epithelial. As I understand Hoyer, he believed these lines to be produced by the action of the silver on the surface of the cornea-corpuscle. "Wenn nun also die in der Hornhautsubstanz ausgegrabenen Lücken und Kanälchen einerseits von Zellen und ihren Fortsätzen wirklich ausgefüllt sind, die selbst keine Silberkörnchen einschliessen, andererseits der Niederschlag dennoch in dem Lückensystem enthalten ist, so kann er sich nur zwischen der Wand und dem Inhalte der Lücken, also auf der Oberfläche der Zellen und ihrer Ausläufer abgelagert haben."

To explain them Schweigger-Seidel constructed a new scheme of the anatomy of the cornea. The lacunæ are, according to him, mere clefts in the fibrillary substance, which

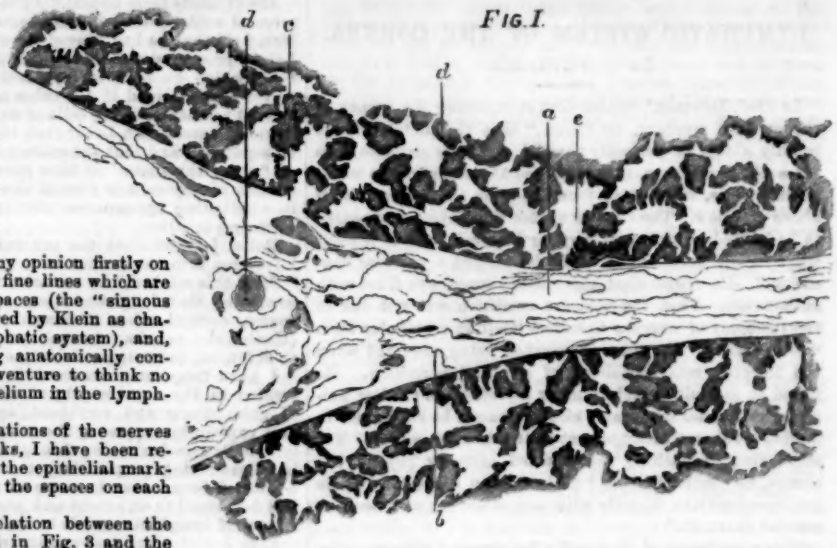


FIG. I.

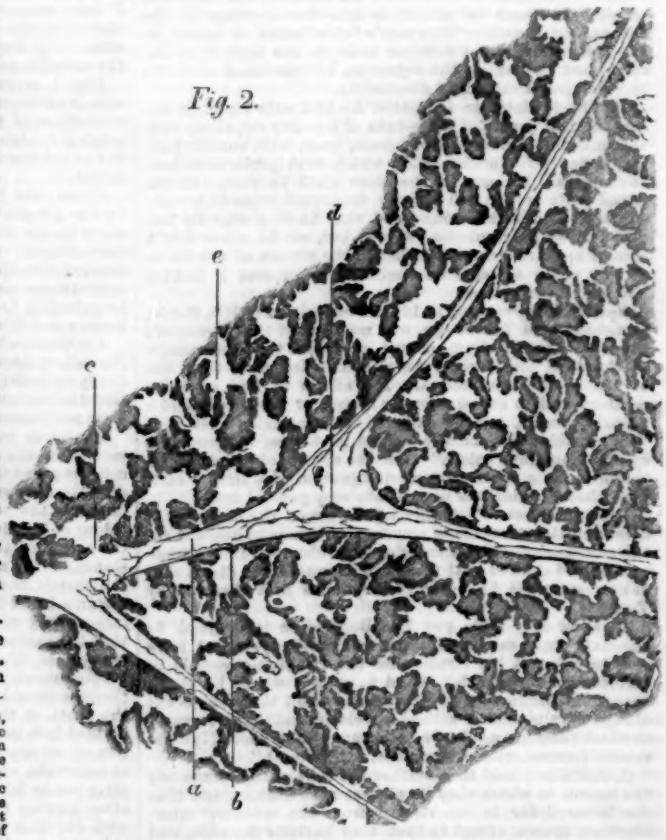


Fig. 2.

EXPLANATION OF FIGS. 1, 2, 3, & 4.—(*Magnifying power:* Hartnack Objective 7; Eye-piece 4.)

a, Lymphatic vessel. *b*, Line between the epithelial cells of the lymphatic vessel. *c*, Free opening from the lacunæ of the cornea into the lymphatic vessel. *d*, Substantia propria of the cornea. *e*, Corneal space (lacuna). *f*, Line between epithelial cells in the lacunæ. *g*, Nerve-stem. *h*, Branch of nerve. *i*, Anastomosis between two cornea-corpuscles. *k*, Cornea-corpuscle (tinting incomplete).

* Von Recklinghausen (Stricker's Handbuch, p. 231), to whom so much of our knowledge of the lymphatic system is due, makes the existence of an epithelium the test of where the *saft-kanälchen* end and the lymphatic vessel begins. He declines (p. 232) to sanction any conclusion as to the source of the lymphatic system in other organs from the *lymph-spalten* of the testicle, because His and Tommasi had proved that they are lined with the characteristic epithelium of the lymph-capillaries "to which, and not to the saft-kanälchen, they are analagous." But a comparison of my figures with that of von Recklinghausen (l.c., p. 229) shows that as to the analogy of the lacunæ of the cornea with the saft-kanälchen of von Recklinghausen there can be no question.

† Reichert u. Du Bois-Reymond's Arch., s. 204. 1865.

‡ Sitzungs Bericht der K. sachsischen Gesellschaft der Wissenschaften. Math. Phys. Classe. 1869.

on one side only are covered with "cornea-cells," one side of the cell being fixed to the fibrillary structure, and the other being free towards the cleft in the fibrillary substance. His cornea-cells differ from what is generally understood as a cornea-cell or corpuscle. What is accepted as the nucleus of the cornea-corpuscle is, according to him, the nucleus of a flat cell (*platten*), the cornea-corpuscle having no individuality (if I may use the term), and no nucleus, and being simply a movable substance, to which it is doubtful if the term "protoplasm" can be applied.

The figures of his isolated cornea cells probably represent the epithelium of the spaces. His theory of the non-existence of the cornea-corpuscle as an independent protoplasmic mass has not found, and is not likely to find, support.

Rollett,* in referring to the dark lines of Hoyer and Schweigger-Seidel, gives another explanation of them. He says that they are only to be found in young animals, and can be demonstrated in every young rabbit; that they mark, indeed, the limits of two adjoining cells, but that the cells are the cornea cells (corpuscles) which have not yet been separated by the growth of the fibrillary cornea substance. "It is certain," he remarks, "that the appearance is not to be seen in the developed cornea layers of grown animals." In reference to Rollett's theory, I have only to remark that the cornea from which sections are drawn in Figs. 3 and 4 were taken from an adult bitch pregnant at the time of their removal.

Fig. 3.

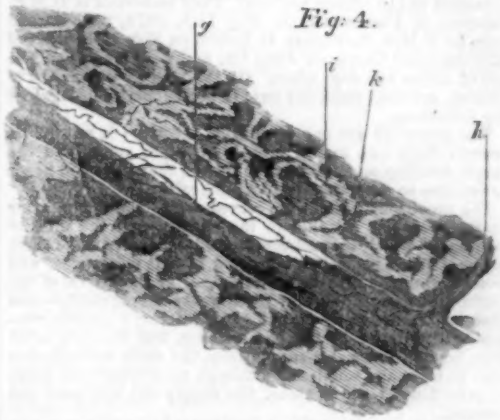
Von Recklinghausen† relates that he had observed vibrios, which had developed in cornea that were decaying at an animal temperature, travelling along the nerve-stems, whence they found ingress into the star-shaped spaces (lacunæ) at their sides. C. F. Müller‡ found that masses urged by injection along the nerve-trunks found their way into the lacunæ (*Zellen-lücken*), and thence concluded that the nerves and the cornea-corpuscles lie in communicating spaces. Leber§ infers it as probable, from the easy passage of fluid along the nerves, that a fine fluid-filled space exists between the nerve and the cornea substance. Lawdowsky‖ considers Bowman's tubes to be "nothing else than injected nerves," and that the saft-kanälchen network of the cornea serves as conductor both for the bundles of nerve-fibres and axis-cylinders and for their fibrillary elements.

In a cornea that has been treated first with silver and then with gold, and in which the special effects proper to each metal have been produced, the lymphatic is brought out by the silver, whilst the nerve coloured by the gold is seen lying in the vessel and nearly filling it. A narrow clear space is distinctly visible between the nerve and the wall of the lymphatic.

Fig. 4 is from a preparation obtained by this method from the same cornea as Fig. 3, and has been selected because in making the section the knife has happened to carry away a part of the nerve-trunk, and has thus made the relations of the nerve to the lymphatic vessel very apparent. In other preparations from the same cornea, in which the nerve, lymphatic wall, and the clear space between them were distinctly visible, I have seen very clearly the continuation of the same relation from the main stem into the nerve-branches and smaller lymphatics.

In stating that the dark central cylindrical body is a nerve-trunk, I confirm Lawdowsky and others. I have followed it in sections, until after repeated subdivisions it has terminated in the distinctive nerve-fibrillæ, and in an oblique section of the trunk itself I have seen the dark violet axis-cylinders lying in the cut edge of the less deeply tinted nerve-sheath structure.

Fig. 4.



It has not come within the scope of the present paper to treat specially of the cornea-corpuscles. As showing that Figs. 3 and 4 are from a normal cornea, I may mention that in sections from the same cornea, in which the chloride of gold had acted exclusively, I saw the usual beautiful webbed network of anastomosing corpuscles with oval nuclei lying in an otherwise perfectly clear field. In comparing the size of these corpuscles with that of the lacunæ, the conviction is inevitable that the fluid-filled space which the easy passage of white cells in the cornea shows to exist between the epithelium and the corpuscle, must, in the normal condition, be very narrow.

In Fig. 4 the corpuscles are represented in several of the spaces fractionally and imperfectly, as they happened to be seen in the preparation.

In conclusion, I would suggest whether the dark and clear fields seen in all silver-cornea may not be produced by a special power on the part of the epithelium to resist the absorption and reduction of the nitrate.

To Mr. J. C. Ewart, of the University of Edinburgh, for the care and fidelity with which he has executed the drawings, my best thanks are due.

Queen Anne-street, W.

* Loc. cit., p. 1122. † Virchow's Archives, loc. cit.
‡ Loc. cit. § Loc. cit. ‖ Loc. cit.

NOTES AND PRACTICAL OBSERVATIONS UPON THE REMITTENT FEVER AND DYSENTERY OF THE GOLD COAST.

BY JAMES J. L. DONNET, M.D.,
OF THE ROYAL NAVAL HOSPITAL, HASLAR; DEPUTY INSPECTOR-GENERAL OF HOSPITALS AND FLEETS; HONORARY SURGEON TO THE QUEEN.

(*Communicated by the* DIRECTOR-GENERAL OF THE MEDICAL DEPARTMENT OF THE NAVY.)

AT this time, when the attention of England is drawn towards that part of Africa—the Gold Coast—where active operations are being carried on by our countrymen against the Ashantees, it may not prove uninteresting to give a summary of the cases of remittent fever and dysentery which were the first admitted into Haslar Hospital for treatment, and which presented symptoms of unusual severity and of long continuance.

The causes which initiated the Ashantee war are known

to the generality of English readers. The reciprocal cession of the Dutch Protectorate of the Gold Coast into English hands, and that of our possessions in Sumatra to the Dutch, whilst it ceded an apparent exchange of territory, leagued in reality to the English a war with Ashantee, and to the Dutch a quarrel with the Acheenese.

The object of this paper has, however, little to do with the causes which produced the war; it simply relates the physical ills which followed in its train.

The first detachment of Royal Marines, Light Infantry, and of Royal Marine Artillery, despatched to the Gold Coast to vindicate our honour and to enforce our authority, consisted of 110 officers and men. They embarked in H.M.S. *Valorous* at Portsmouth on May 13th, 1873, were turned over to H.M.S. *Barracouta* at Lisbon on May 17th, arrived off Cape Coast Castle on June 7th, and were landed on the soil of Africa two days after. On the 13th they marched to Elmina, and that same day were in active operations against the Ashantees.

The year 1873 was one of unusual severity; it was in its seasons fully one month later than other years, and the people residing on that coast confessed that they had never known one so exceptional and so unhealthy.

The provisions which were served out to these men after landing were not suitable to the climate, and the inferior cooking, of which they all complained, tended to make them less so. These provisions consisted of salt meat, rice, and bread during the first days, and only after the arrival of the Control Department—about three weeks subsequently—was fresh beef issued to them, but of so inferior a quality, rendered still inferior by the bad cooking, that the men cared little for it. The water-supply from the wells was offensive alike to taste and smell, and although an attempt was made to have filtered water alone, the supply did not meet the demand.

The loss of the expected ships *Nigritia* and *Yoruba*, having on board provisions, medical comforts, and war material for this service, which loss occurred at this time, was a source of disappointment to these men; and the dulness of life within a fort during the days of inaction, when the frequent heavy tropical rains kept them from out-door exercise, was not in any way conducive towards counteracting depressing influences.

Of the 110 (6 officers and 104 men) who had landed under these circumstances at Cape Coast Castle, 21 (4 officers and 17 men) remained, 12 died, and 77 landed in England from H.M. steam-ship *Himalaya* on Aug. 26th, 1873—seventy-eight days after having landed in Africa. Of these 77, 18 were sufficiently well to resume their duties at head-quarters, whilst the remaining 59, requiring the care and attention of a hospital, were admitted into Haslar immediately on landing. Of this number 40 were cases of remittent fever and 19 of dysentery. The appearance of these 59, taken *en masse*, was that of men who had undergone much suffering and fatigue; their countenances were sallow and marked with depression, they all bore an anæmic look, and in manner were listless and apathetic; the colour of their skin was universally of a citrine hue; it seemed as if the sap of their existence had been checked in its course; their only pleasurable expression was gratification at having arrived in England.

Of the 40 cases of remittent fever, it was ascertained in 37—upon whose statement reliance could be placed—that

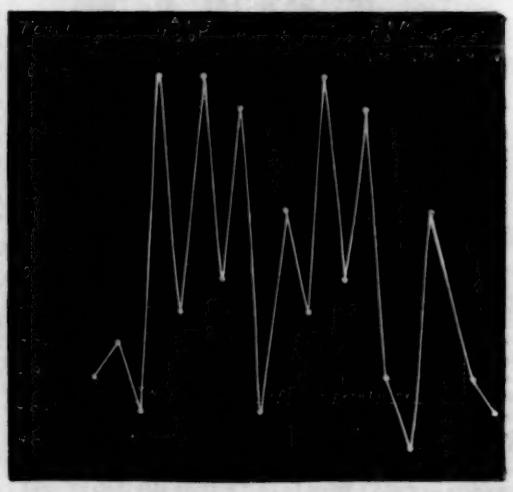
3	were attacked	within	10	days	after disembarkation;
4	"	"	20	"	"
11	"	"	30	"	"
11	"	"	40	"	"
3	"	"	50	"	"
5	"	"	60	"	"

which proved the powers of resistance that each possessed in combating the action of the poison, at the same time that it showed the period the poison took to incubate in the system.

The first man of this number fell ill twenty-four hours after he had landed. He had up to his arrival on the Coast enjoyed good health, and had considered himself possessed of a constitution able to resist any climatic or other influence. From the day of his attack he was a disabled man, and on his admission into this hospital, 78 days after, he had the appearance of one broken by disease.

The majority of those who fell ill were, as a rule, at first seized with chills, followed shortly after by the symptoms of remittent fever. Vomiting was always present, and in so obstinate and distressing a form as to resist all measures adopted to counteract or to diminish its violence; the matters vomited were sometimes the ingesta alone, sometimes bile, and sometimes bile mixed with glairy fluid and secretions of the stomach; in one the matters resembled black vomit. This symptom of vomiting was frequently the first that marked the onset of the disease. The subject of it, on awaking from sleep, felt confused and weary; nausea was then experienced, which was soon followed by vomiting and great prostration. The attack was sudden and violent; and the eve of the day of illness had been marked by no symptom worthy of notice; the men had perhaps felt weaker, and their appetite had somewhat failed, but no sign beyond these indicated that such an occurrence was on the verge of declaring itself.

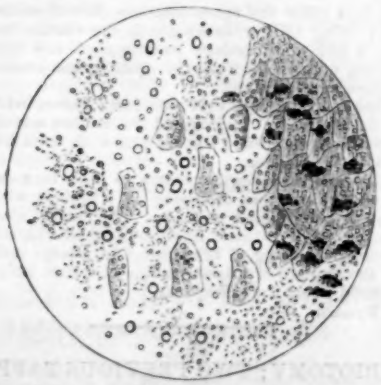
The history of one of these men is interesting, inasmuch as it exemplifies this mode of invasion. During the whole of this man's stay on this Coast he had been employed in the various operations at Cape Coast Castle and at Elmina; during this time he enjoyed good health, and, to use his own words, "I thought I was going to be the lucky one of our party, as I did not have the fever until after my embarkation on board the *Himalaya*, which brought the wreck of our small party home invalided." He was sent home in this ship, as the climate was beginning to tell upon him. His real and severe attack may be said to have commenced on the 20th of August—eighty-two days after his landing in Africa,—when vomiting declared itself in the morning on awaking, followed by headache, pains in the epigastrium and abdomen, and by a state of great prostration. When admitted into this hospital six days after, he was much exhausted and much depressed. The attacks after his admission were characterised by vomiting, high temperature, quick pulse, a coated tongue, confined bowels, partial suppression of urine, and enlarged spleen. The temperature between the 27th August and the 5th September is shown in the accompanying diagram. There was



much mental distress, and there followed much wasting of tissue. After some time he was allowed to go to the country for air and change; but, having returned, as he thought fit for duty, he was seized with symptoms as severe as those which marked the first attack, for which he was again admitted into this hospital. The present state of this patient—for he still continues under treatment—is that of great exhaustion, and gives cause of alarm as to its ultimate issue. Blood, taken from the finger by means of a prick made with a needle, when subjected by Mr. Charles Barron, of this establishment, to histological examination, gave the following results:—"The quantity of red corpuscles was somewhat diminished in number; several white corpuscles were met with; and minute bodies resembling bacteria were found in numbers, but no motion was observed in them."

Combined with the symptoms enumerated above, there

were observed in all these cases a high temperature at night, a quick and weak pulse, a coated tongue, fetidity of breath, general malaise, wandering and delirium in some, and in all the spleen was found enlarged. In four, the action of the poison was such as to act directly upon the sensorium and to produce a state of coma; this grave state was preceded by chills, general malaise, and vomiting, and was accompanied with a low temperature of the body and cold sweats (the algid state of some authors). Two of these four cases terminated fatally; they were the only fatal ones among the number of remittent fever cases admitted. The spleen in these two fatal cases was the organ chiefly affected; it was large (weighing in one of them thirty-six ounces), was soft, easily broken down, and of a dark-purplish clarety colour. In both these cases the intestines were *healthy in their whole extent*. The liver was large; and, as examined microscopically by Mr. Charles Barron, "was found to contain numerous oil-globules; the hepatic cells were unusually pale and studded with oil-globules, and numerous dark granular spots were seen scattered among the cells. Bacteria were numerous." (See figure.)



Mag. 200 diam.

Among the 59 cases there were 19 of dysentery. The prominent symptom in these 19 was prostration of the mental and physical powers; the majority made no complaint of bodily pain, but all laboured under a state of despondency, from which it was vain to attempt to rally them by mere argument. The expression of the countenance in the worst of these cases was that of extreme langnor; the features were pinched, and denoted a feeling of uneasiness and of pain. The frequent looseness of the bowels was the source of much distress to these poor fellows. The evacuations in some were fæcal matters in various degrees of fluidity; in others these matters were mixed with mucus; whilst blood and mucus formed the substance of these evacuations in the bad cases, mixed with which was found a matter of a wax-like appearance, termed by the French *gras fondu*, which, when examined by the microscope, was found to consist of granular matter mixed with epithelial cells.

Three deaths occurred among these cases of dysentery. The mucous coat of the colon and rectum in these fatal cases was found thickened and raised in several places throughout the course of these intestines. These raised portions had a lardaceous appearance, and, when cut into, offered some resistance to the knife; they were ragged, and looked like intestine which had undergone maceration; this appearance was due to ulcerated portions having become detached from their surface. The deposit in the more thickened portions of the large intestines was somewhat brittle, and could be detached by bringing away some of the mucous coat. Examined microscopically by Mr. Charles Barron, "it consisted entirely of granular matter, with spherical refracting corpuscles scattered over the field, and aggregated groups of smaller corpuscles. Interspersed with the granular matter there were also corpuscles of irregular outline, which were probably extruded nuclei of epithelium." In one of these dysenteric cases the large intestines were ulcerated from the ileo-cæcal valve to the anus; the size of these ulcerations varied from that of a pea to that of a florin; some had eaten through both mucous and muscular coats, but had left the serous entire. The spleen was enlarged in all three, and bore a resemblance to the spleen observed in the fatal cases of remittent fever. On examining the blood taken from the left ventricle of the heart of one of these cases, bacteria were found in numbers and in great activity.

Although in these 59 cases the symptoms proclaimed either a fever of the remittent type or a dysentery, it was remarked that sometimes these two affections would accompany each other, or would follow one upon the other. In five, the symptoms of remittent fever were the first to declare themselves, but scarcely had the subject entered upon convalescence when dysenteric symptoms made their appearance. In six, the converse took place; the dysenteric being the first to declare themselves, before the remittent had expressed a sign of existence. In four, the symptoms of remittent fever and dysentery coexisted in the same person.

Thus we find that dysentery readily engrafted itself upon men already affected with remittent fever, and that remittent found no hesitation in accepting for the development of its germ a soil partly exhausted by the action of the dysenteric poison. From this peculiar succession and association of symptoms some have questioned the existence of two separate poisons, and have gone so far as to consider one germ alone sufficient to generate the symptoms which mark remittent and those which cause dysentery, in the same manner as some look upon yellow fever simply as a higher development of remittent fever.*

From the fact that both remittent fever and dysentery are known to have existence in malarious districts within the tropics, and that circumstances such as heat and moisture are required to assist both in their development, little doubt is entertained as to their malarious origin; but it does not follow, because a soil is known to be malarious, that dysentery and remittent fever should of necessity be together in existence. Remittent and other fevers may be prevalent in a severe form without the occurrence of one single case of dysentery; and this is observed on the shores of the West Indies, of the Gulf of Mexico, and of Central America, where, whilst yellow and remittent fevers are in prevalence in severe forms, dysentery is absent, and so completely that not even a diarrhœal symptom is observed. Some, however, from the identical pathological appearances which the spleen presents in both these diseases, and from the apparent similar action of quinine upon both when treated *ab initio*, have concluded that one poison is alone sufficient to generate both diseases. They seemed, however, to ignore the marked dissimilarity between the symptoms during life and the pathological appearances which distinguished each after death, and they consequently assumed as a theory what they could not practically maintain.

Of the 59 who had been admitted on Aug. 26th, 1873, 43 had returned to their duty or had been allowed to go on leave for the purpose of restoring and recruiting their health. Of this number 31 were again admitted, suffering from either ague, debility, or dysentery, all, however, the effects of their first attack. In spite of the change of air, of good food, and of the relaxation from labour which these men had been enjoying, relapses occurred, and of such violence that the symptoms were in no ways dissimilar to those which seized them after landing on the coast of Africa, and when under the direct influence of the malarious poison. The chills, the general malaise, the headache, the vomiting, the high pulse and temperature, with the accompanying depression in these relapses, were equal in intensity and duration, and the unfortunate men were left in as weak and as prostrate a condition as if they had imbibed *de novo* a fresh amount of the Gold Coast malaria. In some these attacks evinced a greater disturbance, probably from the patient's constitution, undermined by antecedent attacks, being less able to repel the action of the poisonous element.

Reasoning *a priori*, under the belief that the attacks were simply efforts of nature to throw off the poison, one was easily led to think that with each attack the violence of the symptoms would be diminished in intensity; but each successive aggression appeared endowed with a virulence as great, accompanied with a series of symptoms as marked,

* *Vide* Notes upon the Yellow Fever Epidemic which prevailed in the Royal Naval Hospital at Port Royal, Jamaica, during 1866-67, Appendix II. (Statistical Report on Health of the Navy for 1867), where distinct and separate proofs are given of the individuality which marks each of these diseases.

as the one that had initiated the disease. It seemed in its course to resemble the rebellious spirit of a man, whose path being made plain, wanders, from a sense of erratic eccentricity, into a violation of all laws and all conventional forms.

Medicine seemed to have lost all influence over the course of the malady. Quinine, considered antagonistic, if not antidotal, had no influence in checking the current of the disease, for in its action it was powerless; the Eucalyptus globulus, so much vaunted of late as possessing properties equal to those of quinine, was, in my hands, worse than useless, for it not only had no influence in checking or antagonising the disease, but it added to the existing distress of the patient by generating nausea and exciting vomiting.

In spite of the radical change in climate, in diet, and in the train of mental thought (to which last I attach much importance and much influence in the cure of disease) which a removal to England had produced, the attacks which were observed months after these men had left the Coast possessed a force as great as the original attack, both in duration and in characteristics. It therefore became a matter of belief to suppose that this successive series of symptoms, though considered to be dependent upon the efforts of nature to eliminate the malarious poison from the system, could only arise from germs originally absorbed remaining behind in the system, renewing, repeating, and multiplying themselves; and when renewed and multiplied, and, having reached a point of maturity, bursting forth into an expression of symptoms similar to those observed before. There seemed in these attacks to be an analogy with those which are observed in the expulsion and the subsequent regeneration of tapeworm; for, after the first seizure, the patient was to all appearance in a state that had the seeming of convalescence, when by a reproduction of the causes, like to the reproduction of the tapeworm, effects similar to the first were evinced.

The cases of remittent fever and dysentery which have been under consideration in the above plain statement have been characterised by a degree of severity which was attributable to the exceptionable meteorological and cosmic influences, and to unlooked-for circumstances which attended the disembarkation of this detachment of men upon the Gold Coast.

The subjects of these cases had undergone a strict medical examination before leaving the shores of England; they were, therefore, healthy and robust. But the combined adverse circumstances which greeted them after landing on this Coast acted injuriously, and characterised their melancholy history. The men who are now in active duties against the Asbantees have much in their favour which these first men had not; and though casualties under the circumstances will occur, and many evil influences be subjected to, the admirable precautions taken by those in authority, and the instructions placed in the hands of each soldier as to his mode of action on the line of march and in the presence of the enemy, will, it is trusted, serve as an ægis for his protection, and save him from the many dread ills which the poor fellows under our immediate consideration have had the misfortune to endure.

The interest which these notes in their relation offer are found in the ready running of dysentery into remittent and the converse; in the persistence of the symptoms, their renewal, and the long unwearied action of the poison upon the system.

Royal Naval Hospital, Haslar.

A CASE OF RETENTION OF URINE SUCCESSFULLY TREATED BY PUNCTURE ABOVE THE PUBES.

BY WILLIAM ROSE, F.R.C.S.

THE following case, which lately occurred in my practice, seems worthy of record.

On the afternoon of September 11th, 1873, I was sent for to a farm labourer, aged sixty, who was suffering from retention of urine after recent exposure to wet and cold. About a year previously he had a similar attack, which I easily relieved by passing a large prostatic catheter. On the present occasion, however, I could not introduce any instrument, and as the symptoms were not then severe, I ordered him hot fomentations, an opiate, and a full dose of castor oil. (Unfortunately, a warm bath was not practicable in a poor cottage in the country.) I visited him four hours later, and was again foiled in my attempts to pass a catheter beyond the bulb. There was evidently a highly spasmodic condition of the whole canal, the instrument being tightly grasped almost immediately on its entrance, superadded to what seemed some permanent stricture at the bulbous portion of the urethra. The prostate could be felt to be much enlarged, and this condition was present, and I believe gave rise to the previous attack of retention.

On the following morning, finding the bladder greatly distended, and being still unable to pass a catheter, I introduced Mr. Cock's curved trocar, just half an inch above the pubic symphysis, drawing off more than forty ounces of high-coloured ammoniacal urine. The conditon of the prostate precluded any operation per rectum. The patient was greatly relieved. There was no unfavourable symptom after this, or irritation produced by the retention of the canula.

Ten days after the operation, the flow of urine by the urethra being fully re-established, the canula was withdrawn, a pad and bandage were applied, and the patient kept lying on his back until the opening was healed, which took place in a fortnight.

He has remained well ever since, and passes his urine in a fair-sized stream. I examined the urethra a month after the operation, and found I could pass with some difficulty a No. 9 into the bladder.

In this case the retention seems to have been due to an inflammatory stricture occurring in a patient with a pre-existing hypertrophied prostate. The fact of the urethra recovering itself without any mechanical dilatation, and afterwards admitting of the passage of a large instrument, shows the absence of a true organic stricture which I presume could never thus disappear.

High Wycombe.

OVARIOTOMY; TWO PREVIOUS TAPPINGS; EXTENSIVE ADHESIONS; OPERATION; DEATH THE FOLLOWING DAY.

BY EDWARD MALINS, M.D.,

HON. MEDICAL OFFICER, BIRMINGHAM LYING-IN CHARITY.

MRS. B——, aged twenty-nine, married ten years; four children, the youngest being now a little over two years old. The history of the present tumour extended over six years. The patient had resisted repeated exhortations to have it removed, but now requested that the operation might be performed. Emaciation marked, general health much deteriorated. Largest measurement round abdomen, 55 in.; from ensiform cartilage to pubis, 30 in. Evidence of much solid matter, considerable ascites, and anterior superior adhesions; no indication of pelvic adhesions. She was tapped the first time on June 27th, 1871, and exit given to 43 lb. of thin serous fluid; and a second time on Oct. 13th, 1871, 87 lb. being evacuated. On both occasions she was pregnant.

On Jan. 14th, 1874, ether being administered, an incision was made in the median line about four inches long, the peritoneum opened by a small aperture, and 40½ lb. of viscid brown fluid allowed to escape. The wound was now opened to its full extent, and the hand introduced; firm adhesions were felt to the upper part of the tumour and parietes; these were partly broken down with the hand. The wound was enlarged to eleven inches, the adhesions exposed, and the firmer dense bands cut through with Richardson's toothed scissors. The tumour was closely connected with the under surface of the stomach, part of the under surface of the liver, and to the transverse colon along its whole length, to some extent also to the ascending and descending colon; some of these were carefully torn through, others divided with the toothed scissors, and where very firm a small patch left. The tumour was polycystic; the contents of the cysts varying, none of the material in the larger ones being fluid enough to flow through the canula. There were no pelvic adhesions; a long thin pedicle springing from the

left broad ligament, which was secured by the clamp of Mr. Wm. Thomas. The peritoneum generally was thickened, and studded with flat masses like adherent lymph. The bleeding from the torn surfaces was not great, and was arrested by torsion and the actual cautery. It was observed that the divisions made by the scissors did not present any bleeding points. An elastic winged catheter, with additional and free holes above the wings, was placed behind the uterus through the vagina. The wound was closed with carbolised catgut, and the abdomen well supported.'

She rallied fairly subsequently, and had some hours' sleep through the night. Without any special symptoms she died suddenly the following day, twenty hours after the operation.

Autopsy, twelve hours after death.—About thirty ounces of reddish serous fluid was found in the peritoneal cavity, none in Douglas's pouch, and no clots. The right ovary was normal in size. The intestines were not distended with flatus, and were very empty. The liver was soft and pulpy, and presented evidences microscopically of fatty degeneration. Nothing unusual was noticed beyond this.

The above is an abridged account giving the main features of interest in connexion with the case. The value of the toothed scissors in the separation of adhesions was especially noticed; it should be remarked that in using them no onward movement should be made as in ordinary blades, but simply division *in situ*, firmly and slowly. Additional experience may confirm their use as a valuable adjunct in this part of the operation, the heavier and more solid forms being better adapted for crushing and dividing dense and resisting tissues.

Birmingham.

A Mirror OF HOSPITAL PRACTICE, BRITISH AND FOREIGN.

Nulla autem est alia pro certo noscendi via, nisi quamplurimas et morborum et dissectionum historias, tum aliorum, tum proprias collectas habere, et inter se compararo.—MORGAGNI *De Sed. et Caus. Morb.*, lib. iv. Proœmium.

GUY'S HOSPITAL.

ACUTE ARTICULAR RHEUMATISM TREATED BY ACIDS; REMARKS.

(Under the care of Dr. WILKS.)

IN recently making some comments on the treatment of acute rheumatism, Dr. Wilks expressed a considerable distrust of the ordinary methods. He remarked that we do not yet possess an accurate knowledge of the essential cause of the disease, nor of the mode of its operation. We are, in fact, ignorant of the natural history of the disease. Medical practitioners are too apt to be credulous in matters of therapeusis, and are not sufficiently careful always to differentiate between effects and coincidences. Usually, for instance, the diagnosis of acute articular rheumatism is regarded as a sure and certain indication for the exhibition of alkaline remedies, and these remedies are persisted in in every condition or modification of the disease, without the slightest evidence of a beneficial influence resulting therefrom. Nay, it frequently happens that the more severe the disease the stronger does the belief in the particular remedy become, and medical men not uncommonly allege in support of the efficacy of the treatment that the complications were of the most serious nature. If the patient recover after having had severe heart disease or symptoms referable to an affection of the nervous system, it is regarded as proof positive of the value of the remedy. Whereas we can not only not be certain that recovery did take place as a result of the treatment, but that it did not occur in spite of the vaunted remedies. On the other hand, some have asserted that there is no known cure for acute rheumatism, and that mint-water will answer every purpose. This is Dr. Wilks's opinion, and it was merely to strengthen this view that he gave mineral acids in the subjoined case, never supposing that they would do good or harm. Dr. Wilks maintains that, until we know everything concerning the disease, and especially the relation between the joint affection and the internal complications, we have no scientific basis for the selection of remedies. It is even doubtful whether the subsidence of the arthritic inflammation during the course of the disease is desirable, for in all fatal forms of rheumatism this is usually seen to occur. It may be remarked, however, that sometimes, in cases of internal complication, it does seem as if large doses of potash or of quinine have some influence in arresting the disease. In several cases treated by quinine Dr. Wilks has noticed the urine to become alkaline on recovery, as if this were the natural process of cure; as is seen also in typhoid fever. The same thing occurred in the present case.

For the following notes we are indebted to Mr. J. C. Ferrier.

G. W——, a well-nourished man, aged thirty-five, was admitted on January 14th. A week before this he began to suffer pain in the hip-joints; subsequently both knees, and the right shoulder, wrist, and hand were affected. The pain in the joints was preceded by a feeling of coldness, but there was no actual rigor.

On admission the left knee was swollen from the presence of fluid within the joint. The right hand also was swollen and painful. A systolic bruit could be distinctly heard over the base of the heart, and extending a short way along the aorta. A venous hum was audible at the root of the neck. Perspiration was acid; temperature 101°; pulse 96; respiration 24. Tongue moist and covered with a white fur. The urine was acid, and contained a large quantity of lithates.

Ordered fifteen drops of dilute nitro-hydrochloric acid every four hours, and a diet to consist of milk, bread, and beef-tea.

Jan. 16th.—Temperature 101·8°.

19th.—Joints previously affected are better, but the right hand and both knees are still painful. Systolic basic bruit still very loud.

20th.—Temperature 102·6°. Perspires freely.

23rd.—Hands and knees almost well. Temperature 101·2°.

28th.—None of the joints are swollen, but some feel stiff and sore. Bruit hardly audible. Urine alkaline.

Feb. 2nd.—Bruit almost entirely gone. The patient is convalescent.

ST. BARTHOLOMEW'S HOSPITAL.

A SERIES OF CASES OF COMPOUND FRACTURES, SUCCESSFULLY TREATED ON CONSERVATIVE PRINCIPLES.

(Under the care of Mr. CALLENDER.)

THE following conclude this series of cases, commenced at page 162. It will be seen that the results of the subjoined cases were as happy as those of the cases already reported. For the notes we are indebted to Mr. E. Jepson, house-surgeon.

Compound comminuted fracture of the left olecranon, communicating with the elbow-joint.—William B——, aged fifty-two, on June 26th, whilst standing on a ladder, lost his balance and fell to the ground, his elbow striking the pavement violently. The injury produced a compound fracture of the left olecranon nearly one inch from its extremity, which was followed by rapid effusion into the elbow-joint. The limb was placed on an angular splint fixed at an angle of about 140°.

July 2nd.—Inflammation set in around the elbow, and two punctures were subsequently made to let out the pus; the redness and swelling increasing to some extent during the following week.

17th.—Slight erythema involved the whole arm, and on the 18th it was thought advisable to remove the arm from the splint to a pillow for a few days; but four days afterwards, the erythema subsiding, the arm was again put on the splint and slung. After this he progressed favourably, the wound healed and the swelling of the elbow subsided, and on Oct. 30th the patient was well.

On Nov. 20th he was sent to the Convalescent Hospital. The arm was at this time stiff, in a slightly flexed position. Several attempts had been made to bend the joint, but so much local pain was thus occasioned that it was found

necessary to desist for a time. On the patient's return from Highgate, if it is found impossible to obtain joint movement by manipulation, other means may be necessary to bring the forearm into a more serviceable position.

Compound fracture of the femur.—John O——, aged fifty-four, was admitted Jan. 11th, 1873, suffering from compound fracture of the right femur about its middle, and with very severe bruising of the adjacent soft parts, a large quantity of venous blood having been extravasated and much of it escaping through a wound situated on the front of the thigh. The limb having been secured with an ordinary long splint, and the bleeding ceasing with rest and position, the wound was dressed with carbolised oil on lint, and for a time the case progressed favourably. After five weeks, however, the soft parts about the fracture proved to be so severely damaged that suppuration was established around the fracture, and pus was discharged in front and made a second way out at the back of the thigh. Large quantities of pus drained away for many weeks. During all this time there was no attempt at union. Slowly the discharge diminished; but it was not until weeks had elapsed that the sinuses finally closed. Meanwhile, by the retention of the long splint and by weight extension, the thigh had been kept fairly at rest; yet it was impossible to avoid some shortening. In the end the limb was encased in strong gutta-percha splints; and, the suppuration having ceased, the union of the bones began, and the patient is now convalescing. The limb has been saved; but there is an inch and a half of shortening.

MIDDLESEX HOSPITAL.

A SELF-ADJUSTING SLING ARM-SPLINT FOR PATIENTS CONFINED TO BED.

RECOGNISING the value of Mr. Callender's sling-splint for the arm, the authorities of this hospital at once determined to adopt it; but it was found that the apparatus of Mr. Callender was not suited for the beds at Middlesex Hospital. To remove this objection, the senior house-surgeon, Mr. H. Hammond Smith, has introduced several modifications, by which the splint may be used with almost any bed.

The apparatus consists of a wrought-iron support, a sling, and a counterweight. The support is made of an iron bar bent at a right angle, the vertical part of which is round and works in a socket fixed by hooks or screws to the bed-head, so that it can be moved to right or left readily by the patient when necessary. At the angle of the support is a small iron pulley over which the cord of the sling runs, and on the horizontal arm is another pulley, which can be moved backwards or forwards at pleasure.

The sling is made of strong canvas, with four holes on each side, and supported by four cords with hooks, which can be so placed in the holes of the sling as to give the arm or hand any angle or position. These sling-cords are attached to the single cord which passes over the pulleys, and has at its other extremity a bag containing shot, so that the weight may be increased or diminished as occasion requires.

The advantages of this sling are, that the patient need not constantly have his arm in one position, that the position may be altered without assistance, and that it can be applied to almost any bed. It has been used with great success in cases of cellulitis of the arm and hand, in amputation about the hand, and in one case of compound fracture of the humerus.

ROYAL SURREY COUNTY HOSPITAL, GUILDFORD.

RETENTION OF URINE FROM ENLARGED PROSTATE GLAND, RELIEVED BY THE PNEUMATIC ASPIRATOR.

(Under the care of Mr. HENRY TAYLOR.)

USEFUL as puncture through the rectum is for the relief of retention of urine from obstruction of the urethra, there are, nevertheless, certain conditions in which its application is attended with great difficulty, if not with actual failure. Chief among these difficulties is an enlarged prostate. In such a case there is a danger lest the trocar and canula should not clear the prostate; or, supposing this difficulty to be overcome, there is the more serious danger of puncturing the bladder at too high a point, so that the recto-vesical fold of the peritoneum is injured. For such cases suprapubic puncture affords the best prospect of success, and of the various methods proposed for the performance of this operation none is more satisfactory or apparently attended with less mischief than the puncture by Dieulafoy's pneumatic aspirator. Experience alone will enable us to fully determine the real merits of this procedure, but so far it has been attended with such success as to warrant its repetition in cases of retention of urine from impassable stricture due to enlargement of the prostate.

For the notes of the following case we are indebted to Dr. F. Warner.

William M——, aged seventy-four, a farrier, was brought into the hospital on the evening of October 3rd, 1873. He had been unable to pass any water since 2 A.M. of that day, and catheterism had been attempted by two surgeons in the neighbourhood without success. He was in great pain, with his bladder fully distended, and reaching above the umbilicus. He stated that he had found occasional difficulty in passing water for about four years, and had been obliged to have a catheter passed on three different occasions, and that there had never been any difficulty in so doing. He also said he had occasionally passed a little blood in his urine. Catheterism was attempted again by the house-surgeon (large prostatic catheter), and subsequently by Mr. Taylor, but both attempts were unsuccessful, and the instrument was found to pass into a long false passage, and free hæmorrhage occurred. On rectal examination the prostate was found so much enlarged that its posterior extremity could not be reached, thus forbidding puncture of the bladder in this situation. The smallest-sized needle but one of Weiss's pneumatic aspirator was then passed into the bladder above the pubis. Twenty-six ounces of urine were drawn off, and a few minutes after the urine began to flow the patient fell asleep. The last portion of urine was tinged with blood.

Next morning (Oct. 4th) catheterism was again attempted with silver and elastic catheters, but failed. The aspirator was then used again as before and thirty ounces were drawn off. Towards evening he passed two ounces by his own efforts.

Oct. 5th.—Twenty-eight ounces were drawn off by the aspirator in the morning, and twenty ounces at night, the urine being quite clear and not offensive.

6th.—By the aspirator twenty-four ounces were drawn off in the morning, and thirty ounces in the evening.

7th.—Thirty-three ounces were drawn off by the aspirator. When the bladder was emptied Mr. Taylor passed a No. 8 elastic catheter with ease, and tied it in. By the evening he had passed thirty-eight ounces of urine. In all, the aspirator was used seven times, the patient frequently asking to have it employed. No abdominal tenderness or other sign of mischief from it resulted.

10th.—The catheter was withdrawn with a small calculus fixed in its eye. The catheter was subsequently passed three times a day.

17th.—He became very feverish. Pulse 100; temperature 104°. Urine became somewhat thick and offensive; appetite falling off.

19th.—Passed urine without use of catheter; had a slight rigor, and the general strength much declined. The appetite failed. He became gradually weaker, and died on Oct. 22nd.

Autopsy, Oct. 23rd.—No trace of punctures in bladder or abdominal walls as seen from inside. Bladder enormously thickened, its muscular fibres standing out prominently; mucous membrane deeply injected. The prostate gland measured two inches from before backwards. The bladder and prostate together weighed eleven ounces. Right kidney mottled, slightly lobulated, showed some cysts, and was evidently the seat of chronic granular degeneration; there were a few purulent points in the cortex; weight five ounces and a half. Left kidney large, pale, full of small purulent spots; weight ten ounces. A large false passage was found passing from the urethra between the prostate and rectum, and nearly perforating the latter.

Medical Societies.

MEDICAL SOCIETY OF LONDON.

TUESDAY, JAN. 26TH, 1874.

DR. S. O. HABERSHON, F.R.C.P., PRESIDENT, IN THE CHAIR.

MR. W. SPENCER WATSON read the report of a case of Neuro-paralytic Keratitis, and exhibited the patient, a delicate scrofulous woman, married. After a fit, with insensibility, she had facial paralysis and deafness of the same side, with paresis of the fifth pair of nerves. Shortly afterwards some exposure to cold was followed by inflammation and ulceration of the cornea. Mr. Watson, who then saw the patient, treated her with tonics, and kept the eyelids closed by means of sticking-plaster. Under this treatment the cornea healed, and some amount of vision was retained. The lesion of the facial, auditory, and trifacial nerves, due no doubt to some intra-cranial deposit near the pons Varolii, but not in it, was still persistent. Mr. Watson considered the case as confirmatory of Snelling's well-known experiments, and illustrated the necessity for three factors to cause the disease in the cornea:—1st, loss of sensibility; 2nd, loss of reflex irritability; 3rd, an external irritant.

Mr. BRUDENELL CARTER thought these cases depended more on the change in the nerve-tissue than on exposure of the cornea to air, dust, &c., and he was very strongly of opinion that they were generally of a syphilitic nature.

Dr. HUGHLINGS JACKSON showed a large coloured drawing by Mr. Ambrose Kibbler, resident medical officer of the London Hospital, of the optic disc of the right eye of a patient who was the subject of an ophthalmoscopic demonstration by Mr. Carter a few nights previous. It showed much swelling of the disc, many small hæmorrhages; yet, and this was the point of the case, the patient could, at the time the sketch was made (November), read the smallest test types, as he can now.

Mr. HUTCHINSON brought forward a case of Syphilitic Necrosis and Ulceration, showing the patient and the artificial restoration of the lost parts. The disease had resulted in the destruction of the superior maxilla (save a small part in the region of the antrum), the vomer, most of the ethmoid, all the spongy bones, and also of the soft parts, including the nose, some of the cheek, the upper lip, and nearly all of the soft palate. A rhinoplastic operation being deemed impracticable, the case was treated mechanically. To supply the lost parts internally an apparatus was constructed of vulcanite bearing mineral teeth, which articulated with those of the lower jaw, and this was held in position by the vulcanite being adapted to the whole of the inner surface of the nasal fossæ, thus affording a hold by means of suction. For the sake of lightness the whole of the apparatus was hollow; the outer surface was coated with soft gutta percha, and rested successively on the following parts:—On each side, the nasal wall of the antrum and the lachrymal bones; above, on the horizontal plate of the ethmoid; behind, on the basilar process of the sphenoid, and the posterior wall of the pharynx; the floor of the artificial piece formed the roof of the mouth. Mr. Hutchinson had also made an artificial nose of vulcanite. This was fixed to the man's face by an elastic band, which passed round the head; the junction was partially hidden by means of a moustache fixed to the upper lip, which was also artificial. Mr. Hutchinson commented on the fact that the man's occupation—he was a mason—and his position in life compelled him to treat the case in the simplest manner possible, the various delicate improvements in the shade of colour, mode of attachment, and usefulness in mastication, being only possible in the case of persons in a higher sphere of life, who would appreciate and practise delicacy of manipulation. He also pointed out the interesting fact that the sense of smell was present while the artificial nose was worn, but was entirely absent when it was not applied to the face.

Mr. SEWILL described a mechanical contrivance for the relief of cleft palate.

Mr. PENNEFATHER showed some specimens of Aural Polypi, and a new instrument for removing them. He also showed a very ingenious instrument for introducing an artificial tympanum.

The report, prepared by Dr. Port and Mr. Henry de Méric, on the deformed fœtus sent by Dr. Diver, was then read by Dr. Port, and was as follows:—The specimen of anencephalus which we have examined shows the following characteristics. The cranium and the special canal are fissured in their whole extent. Of the spinal cord nothing at all could be distinguished; of the brain only rudimentary parts which adhered to the torn sac formed by the meninges. All the cranial and spinal nerves were well formed. No other malformation could be found out except those dependent on the abnormal accumulation of cerebro-spinal serum. On removing the skull and spine, it is seen that the flat bones of the skull hardly exist, that the base of the cranium is very much shortened, and that there is a strong flexion between the pterygoid bone and the os occiput. It looks as if the upper part of the cranium had been sawn off. Of the frontal bone the nasal portion is well developed; of the frontal part there is only a small margin to be seen. We could not detect anything of the parietal bones. The pterygoid bone is extremely small; the petrosal bones are comparatively large. The only existing part of the occipital bone is its basilar portion. If you regard the open cavity of the skull as a whole, it seems as if a force had acted from within in all directions, had torn asunder part of the cranium, and partly destroyed the bones or shifted them sideways. The spinal canal is freely exposed, there being no posterior arch. The spine, regarded as a whole, shows a strong curvature, the cervical part being much turned forwards; the upper closed backwards. At the same time the cervical vertebræ seem to have been arrested in their growth. Among the malformations that are brought about during fœtal life by abnormal accumulation of the cerebro-spinal fluid there are three species to be distinguished. In the first there is an abnormal quantity of serum, but the brain, spinal cord, and its bones remain closed (hydrocephalus, hydrorachis); secondly, there is a permanent accumulation of serum at certain parts, and then the canal gets fissured, and the brain or cord collapses (hydrocephalocele, hydromyocele); thirdly, the original accumulation of serum was so great that the consequence is a permanent fissure of the whole cerebro-spinal canal with more or less destruction of the brain and spinal marrow (cranioschisis, rachischisis). Our case belongs to the last.

The PRESIDENT then showed a Heart with Aortic Disease, one of these valves being thickened and everted. The patient, a butcher aged nineteen, had suffered from acute dropsy, pericarditis, and double pleuritic effusion, and on July 15th the dyspnœa was so urgent that paracentesis was performed in the sixth left intercostal space, and about three pints of serum removed. There was gradual improvement up to the 12th August, and on the 19th the patient went to a convalescent hospital. On leaving he went back to his work, and continued better in health till three weeks ago, when he had sore-throat. He continued at his work for another fortnight, when pain in the region of the heart, and on the right side of the chest, and also in the left arm, came on, accompanied with great dyspnœa. The abdomen was full and tense, and the hepatic dulness was increased. There was continual cough, especially at night; sputum thin and frothy. The breath sounds were normal; the cardiac dulness was from the fourth to the sixth rib. A distinct double bruit was audible over the aortic valves and in the course of the aorta, but at the apex of the heart, and to the left of the nipple, it was difficult to distinguish the precise time of the cardiac murmur. A soft systolic murmur was synchronous with the cardiac impulse, and was followed by a louder bruit. The latter sound was thought by some to be synchronous with the pulsation of the carotid. The pulse was regular, 116; respiration 60; urine 34 oz., sp. gr. 1016, free from albumen and sugar. On the 6th he had not improved; respiration 64; pulse 128. On the evening of the 9th he was better than usual, had been playing at draughts, and went to sleep comfortably, but awoke about 10 P.M. in great distress, breathing most laboriously; respiration 100. He died the following morning.—*Autopsy* on the 10th: There was some effusion into both pleural cavities, one or two pints; lower lobes of the lungs red, fleshy, and compressed; the pericardium adherent. Aortic valves: one valve thickened and everted, the double crescents much thickened; ventricle dilated and hypertrophied. Mitral not enlarged;

some small vegetations on the auricular side. Weight of heart, 16 oz.; liver congested and fatty, 63 oz.; spleen firm; kidneys congested.

PATHOLOGICAL SOCIETY OF LONDON.

TUESDAY, FEBRUARY 3RD, 1874.

SIR W. JENNER, BART., K.C.B., PRESIDENT, IN THE CHAIR.

MR. BUTLIN exhibited a specimen of Ununited Fracture of the Femur. A woman, aged fifty-one, was admitted into St. Bartholomew's Hospital in March with an oblique fracture of the femur, five inches above the knee. It was put up with Liston's splint. At the end of six weeks there was no union. It was again put up, and remained till August; still no union. Then an inclined plane and weights were used; the shortening was from two to two inches and a half. On December 13th there was no union, and the lower end of the upper piece of bone was resected, and two steel pegs put in. At the end of January, as no union had taken place, and the patient was losing ground, the thigh was amputated. On examining the knee-joint fibrous anchylosis was found; the cartilages were ulcerated. She had complained of stiffness in the joint five months after the fracture.

In reply to Mr. Arnott, Mr. BUTLIN said there were no symptoms, such as starting pains, &c., to attract attention to the joint.

Mr. ARNOTT showed for Mr. BRUDENELL CARTER an Intra-ocular Growth. It was removed from a youth aged seventeen. He was blind of the right eye when he saw him; the eye was painful and inflamed; the iris was in contact with the cornea, and a mass was seen behind it. The eye was enucleated. The tumour had grown very rapidly. Only fatty detritus was found in the mass; there was no trace of new active growth.

The specimen was referred to the Morbid Growth Committee.

Mr. GOWLLAND showed some Villous Tumours of the Rectum. He had met with five cases in seventeen years. The three specimens now exhibited were removed from patients during the last twelve years. The first case was a man aged sixty-two, healthy, who thought he had had bleeding piles for two years and a half. Then the bleeding ceased, and a large mass protruded when the bowels were opened; the bowels were very irritable. This protrusion when first seen was the size of the fist. It was removed by ligature, and the patient did well. The second case was a woman aged sixty-five, who had had a protrusion when the bowels were opened for twelve or fourteen months. There was tenesmus and slight hæmorrhage. It was removed by ligature and she made a good recovery. The third case had been operated on twice, once in 1862 and again fourteen days ago. He had had no bleeding till six weeks ago. The mass protruded, and there was difficulty in returning it. He did not think that it had been all removed at the first operation. In the other cases he had met with one was malignant, in an old lady; and the fifth case was a man aged thirty-one. He had a polypus sixteen years ago which was removed; it returned, and after six years it was again ligatured; it returned again in about ten months, and was removed by ligature.

The PRESIDENT asked if he had made a post-mortem examination of a rectum, the seat of one of these growths. In the bladder there were many, and of varying size. With regard to their structure, they resembled the villous growths found on serous membranes, as on the heart, &c.

Mr. HOWARD MARSH asked if Mr. Gowlland had met with any cases of villous malignant growth from the rectum, and he related the case of a woman, aged thirty-five, who had a growth protruding from the anus. It rapidly increased, and colotomy was performed on account of the severe pain caused by the fæces passing over it. The tumour increased in size, and she died seven months after from the local disease.

Mr. GOWLLAND said he had not seen anything like that. Cases of villous cancer are mentioned, but the skin is involved.

Mr. ARNOTT thought the point raised by Mr. Marsh was interesting. Rokitansky called these growths villous cancers; Mr. Quain called them innocent, resting this on an examination made by the President some years ago. There was never any secondary deposit or inflammation of glands. Rokitansky says that in some cases the lymphatic glands are involved. He had examined a piece of one removed by Sir W. Fergusson some years ago; it was not cancer. Another interesting point was the relation of these villous growths to villous growths of the uterus. He referred to a paper read by Dr. Beck before the Medico-Chirurgical Society, who had examined one and found the structure similar to that described to-night; though in some cases of villous growth cancer is mixed up, as is shown by the post-mortem examination.

Mr. HOWARD MARSH showed the Bladder, Uterus, and Vagina of a child three years old, the mucous membrane of which was the seat of a sarcomatous growth. The mucous membrane was studded with a number of irregularly nodulated masses, varying in size from an apple-pip to an acorn; on the larger there were secondary nodules; the vagina was distended by pedunculated masses, club-shaped and flattened. Under the microscope a number of rounded cells, like lymph-cells, were seen in a vascular and fibrous substance. The child had been ill for a year; the mother had noticed little bladders, variously coloured, projecting from the vagina. Some of these were removed by ligature. A tumour was detected in the hypogastric region. There was incontinence of urine. The child died about eight months after, about eighteen months from the commencement of its illness. There were no secondary deposits; the disease was quite local. The case was exceedingly rare. Mr. Holmes and Mr. Birkett each describe one similar. The specimen was referred.

Dr. CRISP showed specimens of the Grouse Disease. He had studied the disease for some time, and did not think tapeworms were the main cause. Last year Dr. Cobbold spoke of strongyli as being found in the cæca of birds dying of the disease, and declared these were the cause of death. He had found many tapeworms in the intestines of healthy birds. Last year he examined six birds, and all had strongyli and tapeworms in cæca; in twelve other birds seven had tapeworms, and in sixteen others only two were free from strongyli and tapeworms. From his observations he thought few birds were free from parasites. Since he had found so many in healthy birds, he did not think they were the cause of the epidemic. He believed there was some other cause, and further examination must be made.

The PRESIDENT asked if strongyli and tapeworm were found in the birds when there was no epidemic.

Dr. CRISP said the strongyli were only last year noticed by Dr. Cobbold. He thought tapeworms were found at all seasons. In reply to a question whether the destruction of hawks had anything to do with the epidemics, Dr. Crisp said it was alleged it had, as hawks and other birds of prey killed the diseased birds, which were weaker.

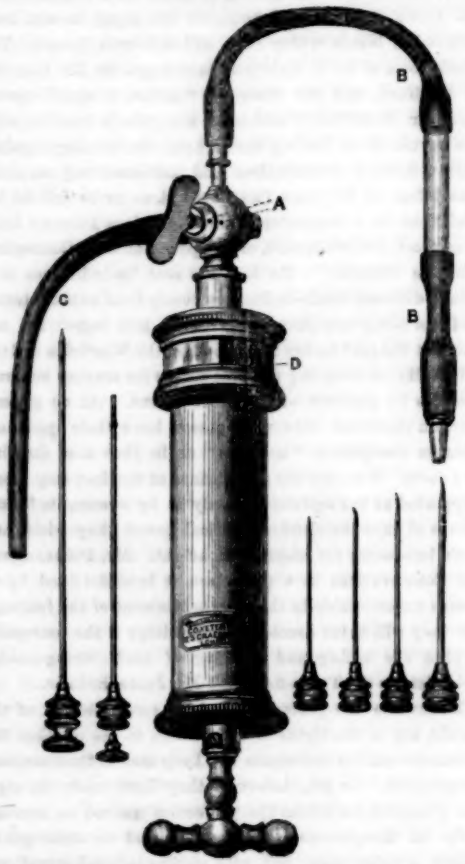
Dr. FARQUHARSON did not believe the disease was due to strongyli. He thought it epidemic, returning every seven years. A large number of birds were carried off at one time, and the birds were found near running water, and so probably there was fever and contagion.

New Inventions.

COXETER AND SON'S ASPIRATOR.

VARIOUS modifications of the aspirator have been brought out by different instrument-makers; and Messrs. Coxeter's is one of the latest, if not the best. The objection to the glass cylinder adopted in many instruments is the difficulty, if not impossibility, of making it so true that the piston shall fit accurately throughout and maintain a perfect vacuum. In this new instrument Messrs. Coxeter have reverted to the brass cylinder, but have fitted to its lower end a narrow glass ring, through which the character of the fluid withdrawn can be readily seen. The aspirator is fitted with an ingenious "three-way" stop-cock, by which the use of a second stop-cock, which is always troublesome in use, is dispensed with. As it is found impossible to make the ordinary flute-key stop-cock of the stomach-pump

sufficiently air-tight for purposes of aspiration, this arrangement seems to be the most satisfactory which can be obtained. In addition to the glass in the cylinder, the tube to which the aspirating needle is attached is fitted with a



piece of glass tubing, so that the nature of even a very small quantity of fluid may be at once ascertained. The needles themselves are made of seamless steel, and are, therefore, more durable, and less liable to become impermeable from rust.

A NEW SOLVENT FOR PHOSPHORUS.

MANY attempts have recently been made to obtain a tolerably stable and agreeable preparation for the administration of phosphorus in pills. Mr. Gerrard, of University College Hospital, by using resin as a solvent, has greatly simplified the administration of phosphorus as a drug. We have before us a sample of the phosphoretted resin, which is bright, clear, and almost odourless and tasteless. The phosphoretted resin is prepared as follows:—

"Take a strong, wide-mouthed, well-stoppered bottle, and weigh it; then melt a quantity of ordinary resin sufficient to fill the bottle; let the bottle be warmed, then pour in the resin to nearly but not quite fill the bottle, reweigh, and for every ninety-six parts of resin take four of phosphorus. Now observe that the resin is in a fluid state; if so, add the phosphorus, and fix the stopper tightly. Place in a sand-bath previously warmed, and apply heat to 200° C. or 392° F.; digest at this temperature, and shake frequently until the phosphorus is dissolved."

It is to be observed that care must be exercised not to ignite the phosphorus. The *Pharmaceutical Journal* of the 6th December, 1873, contains the details of manipulation. The resin may be then made into elegant and readily soluble pills, which appear coated, but which are not so. They are made thus:—

"Take of phosphoretted resin (4 per cent.), twenty-five grains; powdered white sugar, seventy-five grains; tincture of tolu, a sufficient quantity. Pulverise the resin, mix with the sugar, and form into a mass with tincture of tolu—eight to ten drops is sufficient; then divide into twenty pills; each pill will contain one-twentieth of a grain."

By numerous experiments we have found the pills to be chemically and therapeutically active.

IMPROVED ENEMA AND DOUCHE, WITH BIDET.

THIS apparatus is made of strong tin, mounted on a stand, and enamelled white inside; the outside being enamelled in imitation of wood, marble, or china, as desired. The back part forms the bidet, upon which the person using it is seated; the back forms a compartment for holding warm or cold lavements or injections, and in which the pump is fixed. There is also a silvered jar for medicated lotions or enemata. Both pump and jar can be instantly removed for cleaning, by lifting out the small band round

the pump, by which it is held firmly in its place. The tubes from the pump are jointed in such a manner that they can be raised or lowered at pleasure; and each of the injection-tubes can be reversed from the end to the middle joint, or *vice versâ*, so as to serve every form of application, for male or female use. It has an elegant appearance placed in any bed- or bath-room, and is most simple in construction.—It is manufactured by J. & F. Allen, 64 & 65, Marylebone-lane, London, W.

THE third annual report of the Committee of Management of the Caterham Imbecile Asylum, just out, shows that during the past year 1906 patients were treated, of whom 232 were fresh admissions. The deaths amounted to 187, and it is pointed out that, considering the character of the people resident, this number must be considered a low rate of mortality. Thermometers are now suspended in every ward, and the temperature is noted and reported by the attendants four times in every twenty-four hours. Any diminution in the standard temperature given for each ward is met by increased warming or shutting off a portion of the outer air. Complaint is made, and we think justly, that very old and palsied people, but who cannot be considered as truly imbecile or insane, are constantly sent into the asylum. Such cases should, as a rule, be retained in the workhouses.

THE LANCET.

LONDON: SATURDAY, FEBRUARY 14, 1874.

MR. GLADSTONE has met with his Moscow. His appeal to the country, made in the sure expectation of victory, has recoiled upon him in disaster. His opponent now leads a majority greater than any Conservative Premier has commanded for a whole generation. The reasons for this revulsion of political feeling are variously given. According to the *Pall Mall Gazette*, Conservative reaction has less to do with it than "Liberal disgust." There is not a little truth in this explanation. Incompetency on the part of Ministers has been a fitting sequel to a perverse view of domestic policy on the part of the Premier. To lighten fiscal burdens, above all to remove the Income-tax, has been, by Mr. GLADSTONE's own avowal, the crown of his administrative edifice. To its consummation he has sacrificed public and imperial interests of the most vital kind. Economy along the whole line, was the watchword passed to his subalterns; and the fidelity with which they have obeyed it is only too notorious. Of all Departments, none felt the depressing influence of this policy more than the Public Health, until the administration of the Local Government Board has become a byword among enlightened and public-spirited men. Of all the elements of "Liberal disgust," this has been at once the best-founded and the most fatal. The *fiaschi* of the late Home Secretary, the blunders of Mr. LOWE, the churlishness of Mr. AYRTON, might have been borne with resignation; but the conduct of Mr. STANSFELD provoked positive resentment. We have no desire to resume the thrice-told tale of his delinquencies. We need but indicate the moral which his practical interpretation of a penny-wise policy establishes. The country, indignant at the cynical contempt with which its vital interests were regarded, has refused to accept the bribe which the Government has amassed for it out of ignoble savings. It has rejected Mr. GLADSTONE's suit, backed as it was by imposing "money considerations." It openly prefers another courtier who makes no special claim to "domestic economy," but undertakes to administer the household quietly and comfortably, without fitful spasms of reform, on the one hand, or systematic neglect of the conditions of healthy life, on the other.

Nor has it been the Government only that has provoked the sharp rebuke conveyed in the late elections. In some respects the Liberal party itself has incurred the disasters visited on it. Including as it does the apostles of anti-vaccination and of the "Contagious Diseases Interest," it has, through some of its followers, inflicted cruel, if not very deadly blows at the vitals of sanitary reform. Absurdly sensitive to the "liberty of the subject," these men are signally dead to the truth that society is not a mechanism, but an organism in which "all men's good" must be "each man's rule." The individual must sacrifice his prejudice or his practice for the benefit of the whole, wherever it can be shown that either is at variance with the common weal. This truism in civilised government is apparently unknown to many "Liberals." Prominent among them are Sir TITUS SALT and Mr. JACOB BRIGHT, and both, we are happy to say, have received a lesson which they will not soon forget. The break-down of Sir T. SALT's agitation against Mr. FORSTER at Bradford, and the summary "notice to quit" served upon Mr. BRIGHT at Manchester, are quite in keeping with the revulsion of feeling throughout the country against narrow-minded sectarianism and self-asserting sciolism. The defeat of Sir JOHN PAKINGTON, true as he was to his traditions as a supporter of the Contagious Diseases Acts, is no proof, it now appears, of the power of the "Contagious Diseases Interest." He lost his seat by influences of a totally different kind—influences purely local in their tenor, and certainly not such as to make him regret for one moment the part he has taken, both at the War Office and the Admiralty, in adopting the best means for staying venereal diseases in garrison and seaport towns. At no general election since the Acts were passed have their opponents been so completely "nowhere" as in that now drawing to a close. Nor does the significance of the fact stop there. Supported as the agitation chiefly is by women, its failure proves at once the slender political power they wield, and their incapacity for wielding it aright. Mr. DISRAELI and the Conservatives as a party are, it is understood, by no means unfavourable to the enfranchisement of the fair sex; but they will never concede that privilege if the concession implies the aiding and abetting of such wrong-headed publicists as Sir TITUS SALT and Mr. JACOB BRIGHT.

Meanwhile the profession, and no small section of the public, are on the tiptoe of expectation to see whether Mr. DISRAELI and his colleagues will keep true to their sanitary programme. As yet, however, they have made no sign. Mr. FORSYTH, for whom the profession worked so successfully in Marylebone, stands committed to make public health a *prima cura*; but, with similar isolated exceptions, the Conservatives as a party have shirked the subject. We have angled assiduously in the troubled waters of the elections, but have, as yet, landed few on the green baize of the sanitary board-room. At the anniversary banquet of University College Hospital on Tuesday Lord DERBY admitted that the "fly" had been thrown over him with much skill and ingenuity, but that he did not mean to "rise." An equal shyness has been shown by Mr. DISRAELI, whose three addresses to his constituents contain not one word of allusion to his famous sanitary shibboleth of last summer. We may be over-anxious, and therefore impatient on the subject; but it is almost time that a party already committed to a peculiar care for the public health should, through one or other of its members, make some declaration of policy. Besides Mr. DISRAELI and Lord DERBY, both of whom have spoken well and decidedly on the paramount importance of sanitary reform, Sir CHARLES ADDERLEY has connected his name with a public health measure which never received justice at the hands of the Government, despite the loyal and effective advocacy of its provisions by Mr. F. S. POWELL and other leading Conservatives. To these gentlemen, in the possible preoccupation of their chiefs with

matters of more imperial interest, we shall look for the early restoration of public health to its rightful place in the political foreground; and, in doing so, we can promise them the friendly and earnest co-operation of the profession at large. Whether rumour be or be not premature in assigning to them the offices held by Mr. STANSFELD and Mr. HIBBERT respectively, of this we may be sure, that while they, or indeed almost any two Conservative publicists, would be preferable to the Sultan of the Local Government Board and his Grand Vizier, just rejected at Oldham, they could not, under any circumstances whatever, be possibly worse.

A RECENT meeting of the Central Committee of Sanitary Delegates of the Northamptonshire combination of Sanitary Authorities has afforded an instructive insight into the working of Mr. STANSFELD's "policy" in initiating the Public Health Act of 1872. A letter from Mr. HENLEY, one of the general inspectors of the Local Government Board, to the Chairman of the Committee, read at the meeting, showed very clearly the utter crudity of the notions under which the Local Government Board had, through its general inspectors, advised combinations of sanitary authorities. Mr. HENLEY in this letter expresses the opinion that "it is essential to the proper working of a large combination that the [Central] Committee should be established and have some legal status"; and in justification of this opinion he advances the following reasons:—"Many things may occur, such as the death of the officer of health or his inability to act; consultation must then be held with all the bodies concerned. It is also most desirable that some system of reports should be established throughout a combined district. This will facilitate the work of the officer of health, especially in his dealings with the various inspectors of nuisances." This is to say that primary and perfectly well-known considerations, which should have had a foremost place in the arrangements for combination of sanitary authorities, are a subject of discussion months after such combinations have been formed, as if they were newly discovered matters from a novel experience! That central committees should have no legal status was, perhaps, a necessary consequence of the principle of combination having been hastily and rashly adopted by the Local Government Board. But the discovery that a medical officer of health might perchance die, or be unfitted for his work by sickness, and thus occasion a difficulty in working a combined district, is exquisite in its simplicity and foresight. Equally charming is the discovery gravely announced that uniformity of reporting is desirable in combined districts. Really we may now almost venture to predict a time when Mr. HENLEY, and doubtless his colleagues and principals, will attain the happy inspiration that it is desirable a medical officer of health, whether of a combined or uncombined sanitary district, should be placed in a position in which it is possible for him to do the duties imposed upon him by the Local Government Board.

A postscript to Mr. HENLEY's letter is not less instructive than the body of the letter. It contains, for the information of the receiver, a copy of certain resolutions passed by several medical officers of health, chiefly of combined districts, at a meeting held in Oxford in July last. These resolutions, which Mr. HENLEY thinks of sufficient importance to be distributed to sanitary authorities, refer to the necessity of medical officers of health having frequent returns, at regular intervals, of deaths in their district, and immediate notice of first cases of certain infectious diseases; to the desirability of their being furnished with returns of new cases of pauper sickness; and to the permanent organisation and periodical meeting of the Central Committee of combined sanitary districts. In other words, the resolutions state the necessity of medical officers of health having furnished to them certain kinds of information without which their office is largely a sham; and of being placed in that relation with the authorities in combined districts without which they cannot, even if the information before noted be forthcoming, do their duty properly.

To the same end was an item of news communicated to the meeting by Mr. HAVILAND. He took occasion to tell the committee of the recent conference of provincial medical officers of health (all of large combined districts) in London. In this conference, the subjects debated related to the general organisation of combined districts, to matters connected with the ordinary work of the officer of health, and to matters connected with amendments or enlargements desirable in law. Under the second head were considered, among other things, the relations of a medical officer of health to the inspector of nuisances, vital statistics, the best way of bringing a district under supervision, forms of survey and report, &c., all of which preliminary matters of organisation and work, it would appear, have still to be dealt with as if medical officers of health and inspectors of nuisances were entirely new inventions.

Now the picture we are desirous to direct attention to in this place is this: Here we behold the very pick of the newly elected medical officers of health wasting their best energies in struggling against and endeavouring to overcome difficulties, as to the ordinary working of their duties, which have been gratuitously created by the Local Government Board—that is to say, Mr. STANSFELD. We behold them banding together to obtain the necessary means of carrying out their duties, all of which should and could have been provided for them, had Mr. STANSFELD so willed it, before a single officer was appointed. We witness the extraordinary spectacle of a large body of officers formed not only as if the duties imposed upon them were entirely new, previously unheard of, and experimental, to be learned wholly from their own experience,—but also placed in a position in which the defined duties imposed upon them by the law cannot possibly be carried out. As the complement of this picture, we find their sanitary authorities compelled to struggle to light in sanitary work by a repetition of the blunders through which the earlier sanitary authorities had to struggle to light. In brief, from beginning to end of the initiation of the Public Health Act, we have, in relation to medical officers of health and to all other matters of sanitary organisation, an almost absolute setting aside of the prior experience of sanitary authorities by Mr. STANSFELD, and the substitution of crude *dilettanti* notions. We have here, in fact, a vast experiment in process of trial, in which the new sanitary authorities, the medical profession, and the

populations of the new sanitary districts are the victims: the new sanitary authorities, because they have not been permitted to guide themselves by the experience of the older sanitary authorities, but have been subjected to the guidance of officials as little experienced as themselves in their new duties; the medical profession, because it has been placed in a false position in its relations both to the local and central sanitary authority, and has been put to the wall; the populations of the new sanitary districts, because it is at the cost of their lives and pockets—a large cost, as it will prove, of both life and money—that this experiment is being carried out. And all this to what end?—simply to save the traditions and practice of the old Poor-law Board, and to aggrandise the former officials of that Board. The provision of the Public Health Act of 1872 which limited the duration of the first appointments of certain officers under the Act, has admitted of this experiment being made; and all the follies that have been committed in the initiation of the Act indicate that the provisional nature of the first appointments has been taken advantage of by the Local Government Board for the self-education of its general inspectors. What we are actually witnessing now in the almost inextricable confusion of the new sanitary organisations is really the different and varying results of the progress of self-education invented by Mr. STANSFELD, in the interests, not of the public certainly, but of the former Poor-law officials.

FOR some weeks past we have commented on the insanitary condition of Cambridge, and the neglect of its sanitary authorities. That our remarks have told, is evident from the indignant paragraphs inserted from time to time in the daily papers by the local magnates, who, without advancing any facts or arguments to support their cause, have endeavoured to cast discredit on our statements by reckless charges of exaggeration and untruth. To these charges we replied in letters addressed to *The Times* and *Pall Mall Gazette*, in which we adduced facts which completely vindicated the truth of our original statements, and silenced our opponents. Defeated in their attempt to bring discredit on us, they tried the safer plan of issuing local reports to regain the confidence of the townspeople, in which they have not hesitated to make statements suitable to their purpose, and quote them as coming from us. For instance, the report signed by the chairman of the board, January 17th, alluding to us, says: "The statement as to the *sewer* in Barnwell is entirely incorrect." Now, we never spoke of a sewer in Barnwell at all! Again: "It has been further stated that the sewage from the hospital passed down the sewer in that street fronting Caius College. We desire to state that the whole of the sewage from the hospital is conveyed through another sewer at least 250 yards from Caius College." It will hardly be credited that, in the whole of our report, not a single word occurs about the hospital sewage or drainage; yet the Sanitary Committee have not hesitated to credit us with these facts!

But we must now pass to a more serious charge, which concerns the public rather than ourselves. On Jan. 27th we received information that the epidemic of typhoid fever, which towards the end of December had nearly subsided, had again appeared—that there were eight very severe cases in Addenbrooke's Hospital, and others in the town. This information we made public in our issue of Jan. 31st. On Feb. 6th the Cambridge Urban Sanitary Authority issue a report stating "that they had received returns from *all** the medical men (twenty-four in number†) resident in Cambridge. Of these, seventeen state that they have no cases under treatment. Two or three cases only have occurred during the last fortnight, *all the previous cases being convalescent.** There are five cases only from the town remaining in the hospital." On Feb. 8th a communication appears in *The Times* from Dr. P. W. LATHAM, stating that he had written to the Urban Sanitary Authority on Jan. 31st, saying that he had then seven very severe cases of typhoid fever under his care in Addenbrooke's Hospital, that an eighth had died the previous day, and that the seven cases were still under treatment. In the obituary of *The Times* the same day we noticed the death from typhoid fever of an esteemed Cambridge resident. All this shows very conclusively "that the recent exaggerated rumours and apprehensions" were not without foundation.

But the sad feature in the whole case is the conduct of the Urban Sanitary Authority. From beginning to end they have entirely ignored the gravity of the danger; and when driven by overwhelming facts and growing public indignation to face the storm, they have attempted to weather it in the manner above stated.

A corporate body who deliberately attribute statements to a public writer which he never made, for the purpose of throwing discredit on his report, are surely very censurable. What reliance can be placed on their future public acts when we find the same body stating they had received reports from *all* the medical men of Cambridge, when in truth they had suppressed or misquoted the important testimony of Dr. LATHAM, who spoke most conclusively as to the present severity of the fever.

We are sorry to see the Cambridge Sanitary Authority departing from that plain line of conduct which it is the duty of all public men to maintain.

CASES of facial carbuncle are sometimes, though happily rarely, met with in practice—both hospital and private—which are of a peculiarly fatal character. It is not long ago that we recorded the death of a medical officer of the Guards from this affection. The subject is very fully discussed in an article in the last number of HAYS' *American Journal of Medical Sciences*, by Dr. JOHN A. LIDELL, "On Thrombosis of the Cerebral Veins and Sinuses of the Dura Mater." A consideration of the pathology of this affection is not without interest at the present time in connexion with the origin of certain cases of pyæmia, and from its bearing on the remarkable and well-recognised proclivity of injuries of bone, as compared with those of other structures, to develop this disease. It is, no doubt, owing to the anatomical characters, the relative patency, distribution, and communications of the facial vein, that the morbid materials effect an entrance into the general circulation, and

* The italics are our own.

† The registered number of medical men in Cambridge for 1874 is 38.

develop the cerebral disturbance or pyæmic infection of which the sufferer from facial carbuncle perishes. In these cases the local lesion, commencing, it may be, as a pimple about the upper or middle part of the face, speedily enlarges, and becomes attended with erysipelatous inflammation, great swelling of the surrounding skin, and constitutional prostration. This is followed by swelling of the eyelids, protrusion of the eyeball, cerebral symptoms, and probably those of pyæmia. Thrombosis of the facial, frontal, or temporal vein, and the extension of the disease by continuity of structure through the ophthalmic vein to the cavernous and other sinuses of the dura mater, furnishes, as Dr. LIDELL says, the connecting link between the local disorder, on the one hand, and the cerebral and pyæmic symptoms, on the other.

In 1852 Mr. HARVEY LUDLOW pointed out the main features of this affection; and Dr. C. TRÜNE, a Danish physician, as well as several other observers, have published many instances showing the connexion of thrombosis and phlebitis of the above-mentioned vessels with furuncle of the face. We can scarcely avoid noticing the points of similarity between this condition and that of suppuration in bone and osteo-myelitic affections as regards the anatomical and structural peculiarities of the veins. The venous channels in both afford facilities for the entrance into the circulation of materials generated out of the morbid processes to which these vessels are so susceptible. Be it remarked that it is not every furuncle of the face which is followed by these consequences; but where the nature of the lesion and its attendant objective symptoms are such as we have described, cerebral thrombosis, with or without pulmonary infarctions and abscesses, are peculiarly liable to follow. Indeed, Dr. LIDELL, in analysing the ten cases which he has collected from various authors, says that a discovery of great significance is made to stand out in bold relief—viz., that when anthrax attacks the central or upper portions of the face, and is attended with the objective symptoms he describes, it is generally, perhaps always, accompanied by thrombosis and phlebitis of the ophthalmic vein and cavernous sinus, as well as of the venous twigs with which it is connected; and he adds that he has not found on record a case of facial anthrax with the above objective phenomena in which these vessels were free from thrombosis and phlebitis, if they were subjected to examination after death. Thrombosis and embolism may arise, as everyone must admit, from trivial causes; and such cases are not attributable to hospitals any more than erysipelas. The nature and gravity of the secondary effects will, however, be materially influenced by the nature of the morbid products taken up by the veins; and in any case the chances of true pyæmia spreading, when once originated in a hospital, will increase in proportion to the aggregation of susceptible subjects exposed to its influence, especially if pyæmia be proved to be contagious. There are, in reality, no points of comparison, except the existence of pyæmia, between the results of Mr. PRESCOTT HEWETT's and Sir JAMES PAGET's private practice and those recorded in Mr. ERICHSEN's lectures based on public practice. Mr. PRESCOTT HEWETT's statement is the very natural rebound, however, to Sir JAMES SIMPSON's outcry against large hospitals.

Medical Annotations.

"Ne quid nimis."

HOSPITAL TRAINING FOR LADIES.

WE have received from the Viscountess Strangford a pamphlet with this heading, of which her ladyship is the authoress, and which consists of an Appeal to the Hospital Boards in England. The subject is specially seasonable, for, as we indicated last week, it is high time to decide which system of hospital nursing works best, and in what way that system can be improved, and then to aid its inauguration in all the metropolitan hospitals.

The main object of the pamphlet before us is to urge upon the managing authorities of our hospitals the dearth of useful occupation among the upper classes of women, the advantages to be gained by employing highly educated and highly cultivated women as nurses, and the benefits that would accrue to the unemployed among the upper ten thousand if they were permitted to spend some few hours of each and every day "assisting" in the wards of a hospital. The accomplished authoress pleads, and very powerfully, for those of her own rank who are dying of *ennui*, and sorely want some work to do. The suggestions, as set forth, are to this effect: That a certain number of lady probationers, under the direction of a lady superintendent, should be admitted into the wards of each hospital during what may be termed, in common parlance, "ordinary office hours." "A whole crowd of men, of medical students, whether intending to practise professionally or not, are admitted; and why not a few lady nurses?" This is the "argument," so to speak, of the pamphlet; and we are asked to assist her ladyship in the development of a system of "externe" nurses.

It appears to us, from a purely utilitarian point of view, that the plan, if adopted to any extent, might possibly benefit the nurses, but not the patients; and, indeed, the "Appeal" has too much of this one-sided tinge throughout. There is no royal road to the art of nursing, and, as it appears to us, the very hours that our fair countrywomen are unemployed, and therefore available for charitable or other useful purposes, are those in which hospital service is least required. We differ from Lady Strangford in the opinion that the continuous watching of a case by the nurse is not required, but opine, and that very decidedly, that "it is necessary to watch each case through, not merely the whole day, but every day," and that this rule applies more forcibly to the nurse than to the physician. The "burthen and heat of the day" in nursing really occurs in the watches of the night, and in most medical wards responsible duties begin when Mayfair and Belgravia are just sitting down to dinner. It seems, indeed, clear that the adoption of the system set forth in this pamphlet would not at all tend to relieve or supply the place of the present nursing staff at any of our charitable institutions. And as a means of teaching, we fear that it would but skim the surface on its brightest side, and in most cases seldom get beneath it. We entirely subscribe to the opinion that an educated person, particularly an educated woman, will acquire information far more quickly than an uneducated woman, and that refinement and practical gentleness usually go together. But, as a matter of fact, and, as we fear, to the authoress a disappointing fact, the art of nursing can only be properly and correctly acquired by the sort of training indicated in Miss Lees' book (reviewed in THE LANCET of the 31st ult.); and we believe, also, that in nursing, as in other sorts of work, a little knowledge is a dangerous thing.

In thus criticising the benevolent purpose of Lady Strang-

ford's pamphlet we are fully alive to the evils of want of occupation among the other sex of the upper classes, and know full well how seriously they operate. We may perhaps, in this matter, paraphrase Mr. Disraeli, and say that some sort of healthy occupation for womankind of the upper and middle classes would tend very materially "to guard their consciences and to guide their lives."

THE LIVERPOOL ROYAL INFIRMARY.

AN attempt is being made by one of the homœopathic fraternity to gain a footing in one of the leading provincial infirmaries—the Liverpool Royal Infirmary. The resignation of Mr. Stubbs, as surgeon, would doubtless lead, in ordinary course, to the unopposed promotion of Mr. Reginald Harrison, who has for some years ably filled the post of assistant-surgeon; but a Dr. John Hayward, a homœopathic practitioner, has come forward as a candidate for the vacancy, and proposes to contest the election. Mr. Harrison is a Fellow of the College of Surgeons, and Lecturer on Surgery at the Liverpool School of Medicine, and has had extensive hospital surgical experience, having been formerly surgeon to the Northern Hospital. Dr. Hayward was formerly for a few months connected with a Liverpool Dispensary, and has for some years been surgeon to the homœopathic dispensary in that city. As regards professional status, therefore, there can be no question as to which is the more eligible candidate. Our own views on the homœopathic question are well known, and we have nothing to add to them. Possibly, if Dr. Hayward's practice were to be investigated, it would not be found to differ very materially from that of more orthodox practitioners; but so long as he professes homœopathy, so long would it be impossible for any of the surgeons of the Liverpool Infirmary to act with him, and consequently his election to office could not but prove disastrous to the best interests of the institution, and the welfare of those who are the immediate objects of its charity. In his address to the trustees of the infirmary, Dr. Hayward vaunts his homœopathic knowledge as an "additional qualification," and complains that it is "only party spirit among certain members of the profession" which would exclude him. We deny the existence of anything like factious party spirit among orthodox medical men. All they say is, "We cannot act with men who profess a creed altogether different from ours, and one which, we believe, will not bear honest investigation." We trust and believe that the trustees of the Liverpool Infirmary will elect unhesitatingly the right man to fill so important a post.

TYPHOID FEVER AT CAMBRIDGE.

WE have received several communications on this important and now public question. And as the urban sanitary authority decline to recognise the evil, or take measures to prevent the spread of the disease, we beg to offer a few succinct directions for the guidance of individual householders, by which they may avoid the danger of infection, and in no small measure lessen the risk to the general community.

In the first place, as typhoid fever, in the majority of cases, is spread by the use of water contaminated with sewage containing typhoid excreta, the householder should not on any account make use of *well* water, but only that supplied by the town waterworks. He should ascertain that the dairy from which he obtains his milk has no well in its vicinity; and that the water used for washing the dairy utensils &c. is that obtained solely from the water company.

To prevent the escape of sewer gas into the houses, we recommend trapping the junction of the house-drain with the main-drain, by means of either a dip or a well-laid syphon-trap; if this is not practicable, the soil-pipe of the waterclosets must be ventilated by introducing a small pipe just below the syphon, and carrying it up to a point above the roof. All waste and rain-water pipes should be disconnected from the drains, or else adequately trapped. The drains should be thoroughly and frequently disinfected; and for this purpose we advise the use of carbolic acid. Moreover, it is the duty of each householder to urge on the sanitary authority the paramount necessity of at once substituting the present porous brick-drains for glazed earthenware socket-pipes, fitted with lateral sockets for making junctions, if required.

Next in importance comes the question of diverting the sewage from the river. Without presuming to point out the respective merits of the designs by Mr. Bateman and Mr. Bailey Denton at present before the town, we would insist that all should co-operate to secure a deep outfall sewer, special regard being paid to that part of the river on which the colleges are situate. At the present time, not only can the nose detect an unpleasant odour, but the eye can recognise pieces of paper which have done service in the closet floating on the surface of the river at this portion of its course.

Oxford during the past year has set Cambridge a noble example by expending considerably over £10,000 on its drainage, and having engaged in still more extensive works. We hope the sister town will not be long in following this truly wise policy.

To show what can be done by an intelligent and energetic corporation we would point to Newcastle-on-Tyne. The authorities there, struck by the high death-rate, which averaged about 31 per 1000, and often reached to 40, have taken the most active steps, under the guidance of their able health officer, to improve the sanitary condition of the town, the result being that for some weeks past the death-rate has been considerably reduced, that for last week being only 21.

ORPHAN SCHOOLS.

IN a recent number of *All the Year Round* an orphan records her actual experience of an orphan school. The article is brightly and intelligently written, and possesses a special interest now, when it is being questioned whether the mode of electing candidates to charities by the votes of subscribers is the best that can be devised. The diet and clothing of the school referred to were good, but the orphans were left entirely to the care of nurses, in the proportion of two dozen children to one nurse. The sameness of dress and colour for all the children was surely an objection to be obviated, "the colours taken in by the eye having a great effect on the mind, to say nothing of their absolute physical effect." Sameness also characterised the food, which was either beef or mutton, steamed till every drop of gravy was steamed out of it. A yet more serious defect was the entire absence of vegetables from the diet—no vegetable or fruit except when, as a great treat, a piece of lettuce was served round once a year. There were no holidays and no access to green fields or woods, insomuch that the orphan says she had no idea of the very names of the few stunted trees in the playground. The article concludes with some sensible hints as to the causes of ophthalmia in orphan schools, and confirms Mr. Limpus's remark in *The Times*, that the whitewashed walls so invariably found in these institutions have an injurious effect on the eye. Paintings or prints would obviate this evil, and a good library would have a similar effect in relieving the blank monotony of the mental associations. The article contains much judicious suggestion,

which should be adopted if, as the orphan says, such schools are to be something more than comfortable homes for the servants and officials employed in them rather than for those whom they were intended for.

LORD DERBY ON CHARITY.

ON Tuesday evening, in the course of a speech after the dinner, which took place in Willis's Rooms, in aid of the funds of University College Hospital, Lord Derby remarked that in a state of society like that which now existed charitable institutions were necessary. They may in some instances be unduly multiplied, and may sometimes be greatly abused, but this should be a reason for reforming the administration, and not for subverting the institutions themselves. Of all the institutions intended for the relief of human distress, none are so safe from abuse as a great established hospital, since a man who desires to be taken to a hospital really does require medical or surgical assistance, and if he does not the imposture is easy of detection. The only risk is that a certain number of people may gain gratuitous medical aid who are not entitled to claim it. These abuses may be, however, and he believed are to a large extent in the present instance, guarded against by proper safeguards and inquiry. Hospitals, however, indirectly do good service far beyond the limit of those who are received into them, or who are treated as out-patients, for they are our medical schools where disease can be studied. We all hope that the time will come when the average of disease and mortality will be considerably lower than it is at present. Better lodgings and improved sanitary arrangements will doubtless tend to improve the general health. But when it is recollected what is, at best, the sanitary condition of large towns, and that in the London parks only three or four kinds of trees will really grow, it will easily be understood that an atmosphere which kills an oak is not very healthy for a child. In a generation that had grown up under the influences of poverty, intemperance, and crowded houses, physical weakness and disease are inherited by their children. It is clear, then, that in the removal of these evils and their consequences there will be work to be done by the hospitals not only for our time but for generations to come.

DR. CHARLES CAMERON, M.P.

AMONG the medical men who have been returned to serve in the new Parliament, we believe that Dr. Charles Cameron, whose election for the City of Glasgow we announced last week, will be found in many respects a truly representative member of our profession in the House of Commons. Although not in practice, Dr. Cameron has always evinced the greatest interest in matters medical, and in the position he occupies as editor and proprietor of the *North British Mail*, he has given frequent and practical proofs of the influence which his medical training has had upon him. Dr. Cameron, who is an Irishman by birth, was a distinguished student in arts and medicine at the University of Dublin, where in due time he obtained the degrees of M.D. and M.Ch., as well as A.M. and LL.D. His taste and capacity for literary work soon displayed themselves. The city of Glasgow is indebted to his pen for the rectification of many sanitary evils and social abuses. He was mainly instrumental, through the *North British Mail*, in obtaining a Royal Commission of inquiry into the subject of baby-farming in the city, the iniquities of which practice he fully exposed. In the same paper there lately appeared a series of reports on the adulteration of food and drinks, which opened the eyes of the townspeople to the fact that they were daily poisoned, and to the necessity for the immediate appointment of an analyst.

It is a source of sincere pleasure to us that the electors of Glasgow have returned Dr. Cameron as their senior member, and we feel sure that in him the profession will find a worthy representative and a watchful vindicator of its interests, while the exceedingly small section of senators who have the cause of sanitary legislation at heart will receive into their ranks an experienced and earnest worker.

COMMODORE COMMERELL.

WE are glad to learn that Commodore Commerell's health is so fully restored that he was able to be present at, and take part in, the farewell festivities at Simon's Bay on the occasion of the departure of H.M.S. *Rattlesnake*. The severity of the gallant officer's wounds is best attested by the fact that he was on the sick list for four months and a half, and we understand that on several occasions he expectorated portions of clothing driven into the chest by the missile. All his symptoms were doubtless aggravated by the trying climate of the West Coast, and his life was probably saved by his judicious removal as soon as possible to the Cape of Good Hope. We trust he will not brave the severity of an English winter, but will seek refuge at Madeira or some other sheltered spot until the milder weather sets in.

It is always gratifying to us to note any public recognition of professional services, and we therefore make no apology for transferring to these columns, from the *Cape Argus* the following appreciative comments on the naval medical officers who were responsible for the treatment of Commodore Commerell:—

"But, while congratulating the patient on his restoration to health, we would not omit to accord their meed of praise to the medical officers who, under Providence, have been the means of rescuing him from the very jaws of death. On Dr. Thomas Colan, the chief surgeon of the *Rattlesnake*, devolved all the responsibility of this heavy case from its commencement—a responsibility he has not hesitated to incur. He fearlessly undertook the risk of bringing the Commodore from Cape Coast Castle to the Cape. Through the long and anxious voyage his attendance was unremitting, and he was enabled to land his patient alive at Simon's Town. Here, after weeks of anxiety and care, he had the satisfaction of seeing his treatment crowned with success; and we doubt not that his medical chief and the Board of Admiralty will confer on this officer some substantial mark of their favour in recognition of his services. Dr. Murray merits our praise for the able manner in which, with marked skill and ability, he seconded and assisted the efforts of Dr. Colan. Staff-Surgeon Breen, the principal medical officer of the naval hospital at Simon's Town, has also, we understand, given most valuable advice in the case."

A COLLIERY VILLAGE.

SKELMERSDALE is a colliery village having a population of 4000, lying between Wigan and Ormskirk. An inquiry has been recently held there by the Local Government Board on a memorial for the adoption of the Local Government Act in the place. The statements made in evidence as to the condition of the village show that, even among colliery villages, Skelmersdale must have a pre-eminence in filth. The houses, many of the most miserable construction, almost buried amidst the filth of their inhabitants; the privies so foul as to repel even those most familiarised with them; the drainage accumulated in horrible puddles, fed also by the liquid abominations of pigstyes and middensteads. The approach to one group of houses is described "as very narrow and ankle-deep in mud," and the reporter adds of this group:—"There are large accumulations of night-soil and manure from pigstyes, the drainage from

which I saw running over the surface and lodging within a few feet of the back doors of the houses. The tenants have great difficulty in getting rid of the night-soil, ashes, &c., as the farmers will only fetch them when it suits their convenience. There are four wells in connexion with this property. In all cases they are close to cesspools (one being within four feet), privies, pigstyes, or large heaps of ashes, &c. The water, of course, is wholly unfit for use. I was told that during dry weather rain-water was so precious that it has to be taken into the house to prevent it being stolen." An outbreak of diphtheria was in progress at the time of the inquiry. Not a single one of the facts stated as to the horrible condition of the place appears to have been disputed, yet a report of the inspector of nuisances for the rural sanitary authority was referred to, in which that official said that "most of the nuisances in Skelmersdale had been abated to his satisfaction"!

THE BENGAL FAMINE.

WE think it to Mr. Disraeli's credit that he did not shrink from dwelling upon the terrible calamity confronting the teeming population of India. It would be almost impossible for those who do not know India, and what the word famine implies in that country, to realise the nature and extent of the calamity, or appreciate the number and peculiar nature of the difficulties we must expect to encounter. There is not only the question of food-supply and its storage, but that of its conveyance from rivers and railroads to remote and inaccessible villages, for distribution to the suffering people. Then, again, there are the difficulties connected with caste to be overcome. Sir George Campbell has sent in his estimate of the imports and purchases in the country which he thinks the Government of India should make. The Indian authorities are acting in a vigorous and self-sacrificing spirit worthy of all praise. The Governor-General has decided not to go to Simla this year, and Sir George Campbell, though described as looking in wretched health, has determined nothing but carrying him on board ship shall compel him to leave the plains of Bengal this year. It seems to us that Mr. Disraeli was right in saying that such an exceptional condition of things must be met by exceptional measures, and that the export of all grain from the famine-stricken districts should be at once prohibited. The labour-test, too, should be abolished, as a cruelty under the circumstances. The Marquis of Salisbury possesses, if anyone does, the capacity for organisation and the energy necessary for Indian affairs at the present time. Unfortunately, the evils of a famine are not limited to the suffering and starvation which it directly and necessarily involves, but disease and contagious fevers are sure to follow in its wake.

THE CONTAGIOUS DISEASES ACTS.

THE Contagious Diseases Acts have not come to the front as an election question—a fact possibly due to the striking and opportune support they have received from the statements made at the recent annual meeting of the subscribers to the Royal Portsmouth Hospital, in which there are special lock wards under the Government. The chairman, Mr. J. Deverell, said that "he should consider it the greatest misfortune if the agitation which prevailed amongst a certain class of prejudiced persons, especially ladies, should cause the repeal of the Contagious Diseases Act. He had carefully watched the progress of the Act from the first, and he believed a greater blessing was never conferred on the army and navy." The Vicar of Portsmouth, who bore strong witness to the good done by the wards in question, said that fifty-six women had been sent to reformatories, thirty-seven to their friends, and five to service during the past year. Mr. Alderman Emanuel was more outspoken than the chairman respecting the "C. D. A." agitators, and said he "hoped the time would never come when the advice of a lot of foolish, bigoted old women would result in the lock-ward being done away with."

Satisfactory as the working of the Acts is, we regret to find the governors of the Portsmouth Hospital complaining of the parsimony of the Admiralty in supporting their beds. Prior to 1873 the Admiralty paid a lump sum of £4200, and were entitled to 120 beds (all of which, however, were never occupied), thus making payment at the rate of £35 per bed. Last year a new system of payment of £40 per bed *occupied* was begun, and at the same time a more efficient system of management was enforced by the appointment of a special matron in addition to a special house-surgeon for the lock-wards. The governors now complain that, owing to the extra expense thus incurred, coupled with the rise in the price of coals and provisions, the sum actually received—viz., £3691—did not cover the expenses of the Government wards. If this be so, it is clearly the duty of the Admiralty to supplement their grant, for it was never intended that the private subscriptions of the governors of the hospital should be diverted to support wards entirely under Government supervision and control.

THE OUT-PATIENT QUESTION AT LEICESTER INFIRMARY.

THE out-patient question is a very ubiquitous one. Practically it arises from the fact of the patients not being seen in a satisfactory way. Either they are seen unpunctually or by a subordinate medical officer or by an advanced student. Then arise the usual alternative suggestions: either increase your staff of physicians and surgeons, or, by a process of exclusion of unfit cases, diminish the work to be done. A keen controversy over these two rival propositions seems now to agitate the subscribers of the Leicester Infirmary. The great majority of the medical and surgical staff is against the proposal to put on an additional physician and surgeon. Curiously enough, men who are on the staff of hospitals do not favour proposals for enlarging them. In the Leicester case they urge that there is a large number of trivial cases which should find accommodation in the Provident Dispensary of Leicester, which has now more than 13,000 paying members, and the removal of which would reduce the out-patients to practicable numbers. In London there is a tendency to reconsider the statement of the abuse of the out-patient department, and stringent exclusion has had an impoverishing effect on the hospitals in some cases. What should be done in Leicester before enlarging the staff, is to make a careful inquiry into the nature of the cases and the circumstances of patients tenderly, not inquisitorially, remembering that chronic cases are often amongst the most pitiable cases. The lives of many poor people are made happier, at least less miserable, by the frequent taking of certain medicines, such as bromide of potassium, iodide of potassium, cod-liver oil, &c.

THE GOLD COAST.

IT would appear from the intelligence that has reached us that the health of our soldiers and sailors engaged in the Ashantee Expedition is very good, and superior to what it was even a short time ago. The mail steamer *Northam* has arrived at Southampton with a batch of invalids, military and naval, from the Gold Coast. They were received from the hospital depôt ship *Simoom*, stationed at St. Vincent. The military invalids will proceed to Netley, and those of the navy to Haslar. The patients are mainly

cases of fever or dysentery, and most of them are convalescing. Notwithstanding the enormous difficulties that had to be surmounted in the matter of transport, the expedition had pushed on towards Coomassie. Everybody, from the officer to the private, did his best to lighten the duties of the transport until the breakdown had been overcome. A good deal of doubt seems to have arisen from the different and apparently conflicting nature of the late telegrams that have reached this country; but we believe this is to be accounted for by the fact that the Government telegram from the general in command bears a later date than those since published in the papers. The country towards the interior is described as being very superior in a sanitary point of view to that of Cape Coast Castle and the maritime district.

SYME, DICKENS, AND FORSTER.

DR. JOHN BROWN, the genial author of "Rab and his Friends," comes to the rescue of his old friend and master, Syme, against the caricature drawn of him in Forster's "Life of Dickens," vol. iii., p. 217. Dickens, it seems, while giving readings in Edinburgh, had occasion to consult Syme for a painful affection of the left foot. The Professor, according to Mr. Forster, warned his distinguished patient against over-fatigue, but otherwise reported him in "*joost pairfactly* splendid condition." With care Syme thought the pain might be got rid of, but said often, "*Wa'at mad*' Thompson think it was *goot*?"—a diagnosis he did not at all approve. Before leaving Edinburgh, Dickens again consulted Syme, who once more condemned the gout diagnosis, and declared the disorder to be an affection of the nerves and muscles, due to cold. "*Noo I'll joost swear*," Syme is made to say, "that *ayond* the fatigue o' the readings, *ye'd been tramping i' th' snaw* within *two* or three days." On Dickens admitting he had, "*Wa'll*," quoth Syme, triumphantly, "and *hoo* did it first begin? *I' th' snaw? Goot? Bah!* Thompson knew no other name for it, and just *ca'd* it *goot*. Bah!" For this Syme "took two guineas," continues Dickens's biographer. Now, with Dr. John Brown, we appeal to any of our readers who were pupils or friends of Syme, if that thorough gentleman and surgeon ever expressed himself in the pithecoid gibberish quoted in italics? "Mr. Syme," says Dr. John Brown, "spoke, as he wrote, English as few men do—the English of his master, Cobbett—pure, clear, strong, and to the point. He knew well and relished our own rich vernacular, but he never spoke it; not that our italics are it, or anything else human." Broad Scotch, we may add, the nearest to the Icelandic tongue of any in these islands, and graphic and racy accordingly, is, when spoken by men like Sir Walter Scott and the late Lord Cockburn, or, better still, by women like Mary Somerville, one of the most musical of languages, as, indeed, is proved by its lyric poetry, unsurpassed for range and richness in the literature of the world.

MEDICAL OFFICERS AND A CONSERVATIVE GOVERNMENT.

OFFICERS of the army medical service will hail with great pleasure the advent of a Conservative Ministry to power. All the concessions that have been made to their service have come from Mr. Disraeli's side of the House. The first Royal Warrant was signed by General Peel on behalf of Her Majesty. The naval medical service is also much indebted to Sir John Pakington, whose absence from Parliament will be much regretted, owing to the consideration he has always shown to the medical services, and to the advocacy he has invariably given to the extension of the Contagious Diseases Acts. Mr. Cardwell, as we have often stated, missed a great opportunity of serving the army medical service and the State. As it was, his reorganisation has been a very one-sided and ineffective measure, which has created great discontent among the medical officers without adequately benefiting the State. Let us hope that a Conservative Government will show itself true to its old policy by rectifying the blunders of its predecessors in office.

UNQUALIFIED ASSISTANTS.

THE employment of unqualified assistants is becoming more and more unsatisfactory and inconvenient. A very severe censure has been passed on one, the assistant of Mr. Pritchard, of East Retford, for his behaviour in the case of a bad railway accident. The case was one of compound fracture or smash of both legs. Mr. Pritchard was absent, and his unqualified assistant went in his stead. Instead of sending for the assistance of qualified men in Retford, the assistant gave the grave advice that the deceased should be sent away from the Queen's Hotel to Newark, a distance of eighteen miles. The journey was commenced, but dying set in strongly, and the patient was fetched back to the Queen's Hotel. Though it is not maintained that any treatment would have made any difference in the result of this case, it is utterly wrong that a man in such grave circumstances should be treated only by an unqualified assistant. If we mistake not, Mr. Pritchard is the district surgeon of the Great Northern Railway. In that capacity he must often be called on to treat railway accidents. It seems but reasonable either that he should have a fully qualified assistant or leave instructions that in his absence accidents are to be referred to other surgeons. The coroner was perhaps rather severe on the assistant, and somewhat irrelevantly cross-examined him as to his examination in chemistry, but he was entirely right in censuring an unqualified assistant for taking charge of such a case excepting in the most temporary way.

SANITARY REPORTS.

WE are continually receiving yearly, half-yearly, and quarterly reports from medical officers of health and public analysts in town and country, and there is no doubt that many of these reports contain a variety of most useful information. But it is, we suppose, one of the many natural results of muddling administration at Gwydyr House, that hardly any two reports are fashioned in accordance with the same model. As a consequence, the hidden treasures (if they exist) can be reached only by a process of literary digging and delving most annoying and embarrassing to the labourers charged with this particular work. We know, however, perfectly well that, as sanitary matters now obtain, both in urban and rural districts, every medical officer does (or tries to do) that which is right in his own eyes, and hence we can hardly expect uniformity of style or action in any army that has no leader. Industrious health officers must not therefore always charge us with apathy or neglect if we fail to pick out the plots of fine wheat in the vast mass of crops, good, bad, and indifferent, spread out in our sanitary landscape.

CERTIFICATION OF DEATH IN JERSEY.

THE process of legislation is so technical in Jersey as to be unintelligible to other than residents; but we are glad to notice that, at the instance of Deputy Westaway, an important step has been taken towards a law whereby medical men will be bound to transmit to the registrar a certificate of the cause of each death. Our own Commissioner has pointed out the absurdly loose way in which the cause of death is accepted on anybody's testimony in Jersey, whereby all certainty in this respect is prevented. Deputy Westaway

deserves great credit for taking the initiative. He acts with the entire concurrence of the medical profession. We hope, however, that the law will not throw on the medical profession the onus of transmitting the certificate to the registrar, but will assign to the friends the duty of getting a certificate from the medical man and forwarding it. It is enough to ask the profession to write such certificates. Others should see to their transmission.

VIS MEDICATRIX NATURÆ.

DR. WOLFENSTEIN publishes, in the *Allg. W. Med Zeitung*, December, 1873, the case of a lady, sixty-eight years of age, who suffered from incarcerated hernia. The latter ran into inflammation and abscess, especially from neglect, and when the matter was evacuated by incision, fæcal liquid escaped with the pus. The swelling was situated in the left groin above Poupart's ligament, and had involved the sigmoid flexure. Milk injected into the rectum reappeared at the wound, showing that the flexure was perforated. Severe sloughing came on, the femoral artery shared in it and was tied, but the patient, who fell into great debility, was kept up by stimulants. The usual antiseptic applications were used, and on the seventh day after the establishment of the artificial anus motions began to pass the normal way, and no fæcal oozing was observed in the groin. In ten weeks the wound was healed, and the patient quite well.

QUACK ADVERTISEMENTS.

MR. W. H. RUSSELL'S position and character, if they stood in need of any such justification which no one believes, have been amply vindicated by the statement of the judge before whom the late action for libel was tried. It occurs to us, however, to express a wish that the editors and proprietors of journals generally would also do all in their power to discourage some advertisers of a certain class, and to exclude others altogether. We are glad to say that much has been done in this way of late years. We desire to go further, so as to add that all that was necessary has been done towards the exclusion of advertisements of an objectionable character from every daily and weekly journal in the kingdom. Heads of families and others have it in their power materially to curtail, if not altogether to put a stop to the evil, by ceasing to purchase papers in which objectionable advertisements appear.

A SEWING-MACHINE ENGINE.

A FEW weeks back we drew attention to the injury inflicted upon female operatives with the sewing-machine by the constant use of the feet and legs as the motive power; and suggested that it would be easy, at least where large numbers of machines are in use, to adapt some simple mechanical motive agent. We have in consequence received from Boston, U.S.A., a prospectus of a "sewing-machine engine," adapted for either manufacturing or family use, in which steam is the motive power, being generated by the action of either coal-gas or kerosene. According to the prospectus, "it is adapted without change to any sewing-machine in the market, on any kind of work, is under such perfect control that, by a simple pressure of the foot, the operator can start, stop, or run at any desired speed, and accomplish more than twice as much work per day as by foot labour." The price of the engine is 40 dollars, and its working costs 1 cent per hour with kerosene, or 2½ cents with gas; and it is warranted "as safe as the kitchen tea-kettle."

The address of the Sewing-Machine Engine Company is 349, Washington-street, Boston, U.S.A.

ROYAL FREE HOSPITAL.

THE forty-sixth annual meeting of the supporters of this Hospital was held last week under the presidency of Mr. Hopgood. The report showed that during the past year 43,563 out-patients and 1327 in-patients had been under treatment, the beds, 102 in number, being constantly occupied. The nursing system of the institution would appear to be very satisfactory. The total income for the year amounted to £11,700 16*s.* 8*d.*, and the expenditure to £8398 9*s.* 7*d.*, leaving a balance in favour of the executive of £3302 7*s.* 1*d.* Mr. Gant called the attention of the governors to the greatly increased number of out-patients, rendering it almost impossible that they could be properly attended to by the medical staff. It was agreed, after some discussion, that the question of limiting the number of out-patients should be referred to a select committee of the governors.

THE ARMY MEDICAL OFFICERS ON THE GOLD COAST.

WE can scarcely credit the correctness of a rumour which has appeared in the columns of a military contemporary, to the effect that some of the medical officers who have taken part in the expedition to the Gold Coast will not participate in the special rate of pay provided for these officers whilst serving at that station. The terms of the regulations, no less than the statements of officials in this country, have led all medical officers taking part in the expedition to expect that they would receive extra pay, and it would be a manifest injustice if it were withheld. But, as we have said, we can scarcely believe the rumour to have a foundation in fact.

ACCUSING GUARDIANS.

CERTAIN members of the Bridlington Union owe the medical officer, Dr. Hutchinson, a very humble apology for subjecting him most unnecessarily to the annoyance of a charge of want of caution in not taking measures to prevent the spread of erysipelas in the wards of the union workhouse. It seems to us that Dr. Hutchinson would have—he certainly should have—a remedy at law against accusations shown to be entirely contrary to the truth. So far from there being a want of caution, every point of caution seems to have been observed. The case was isolated; the nurse had orders to wash her hands and change her dress, and was provided with a disinfectant. Dr. Hutchinson's defence was triumphant, and a motion averring that all necessary precautions had been taken by him, and the groundlessness of the charge against him, was carried with, as we read, only one dissentient.

INSURANCE AGAINST VACCINATION ACTS.

MR. JAMES TALLAND, Paddington, was lately fined 18*s.* and costs by Mr. Mansfield for refusing to have his child vaccinated. He remarked that the money would be paid by the Anti-vaccination Society. Those who contemplate the absurd opposition to the Vaccination Acts exemplified by Mr. Talland would do well to join the Anti-vaccination Society; they might then contemplate prosecution with philosophic serenity.

THE SEAMEN'S HOSPITAL.

AT the annual meeting of this institution held on the 4th inst., it was stated that the receipts amounted to £11,305, and the ordinary expenditure to £9900, the chief items of which are £2827 for provisions for patients, £2746 for salaries and wages, and £516 for repairs, &c. The admissions for scurvy, as we have already recorded, continue

to diminish, and the resident staff now consists of Mr. Johnson Smith, surgeon; Mr. Duncan, house-physician; and Mr. Cant, house-surgeon. A total of 1905 patients were received during the year, and 1515 were treated as out-patients.

THE RECRUITING QUESTION.

DR. A. LEITH ADAMS, F.R.S., Surgeon-Major in charge of the London Recruiting District, delivered an excellent and very practical lecture at the Royal United Service Institution, on the 2nd inst., on the "Recruiting Question from a Military and Medical point of view." We regret that want of space has compelled us to omit the abstract we had prepared of Dr. Leith Adams's lecture, which provoked a lively discussion that was renewed on the following Monday. We must content ourselves by stating that the general tendency of the military discussions took the form of pensions and continuous service, and making the militia the reserve.

THE PROFESSION IN IRELAND AND THE ELECTIONS.

MR. O'LEARY, surgeon to St. Vincent's Hospital, Dublin, has been returned for Drogheda in the Home Rule interest. Our readers will remember that Mr. O'Leary gave evidence in the late Talbot murder case. Dr. Brady and Sir John Gray have been returned again respectively for Leitrim and Kilkenny. We understand that Dr. Evory Kennedy is a candidate for Donegal.

LAST week the annual rate of mortality in London was 22 per 1000, in Paris it was 24, in Vienna 26, and in Berlin 29 per 1000. In the metropolis 2318 births and 1411 deaths were registered. The deaths included 48 from measles, 13 from scarlet fever, 53 from whooping-cough, 20 from different forms of fever, and 8 from diarrhœa. The deaths referred to diseases of the respiratory organs and phthisis rose to 512, being an increase of 48 on the returns of the previous week. In the large public institutions 237 deaths were recorded.

THE annual meeting of the Belfast Branch of the Royal Medical Benevolent Fund Society of Ireland was held last week, under the presidency of Dr. Purdon. The branch appears to be in fairly prosperous circumstances, and it is most gratifying to observe the efforts made on its behalf by the medical practitioners and students of Belfast. The ensuing meeting of the parent Society in Dublin will be attended by a deputation from Belfast, headed by Dr. Purdon, whose unwearying interest in the good work deserves special praise.

DURING the month of January there were registered in the eight principal towns of Scotland 2668 deaths, 1041, or 39 per cent., being of children under five years of age. Scarlatina was the most fatal of the epidemics, having caused 178 deaths; typhus and enteric fever caused 76 deaths, while small-pox was credited with 70 deaths. Croup and diphtheria caused respectively 45 and 36 deaths. The deaths from inflammatory affections of the respiratory organs, such as pneumonia, amounted to 560, while under the heading of consumption 266 fatal cases were recorded.

VIVISECTION forms the subject of a very able and well-written article in *Macmillan's Magazine* for this month. Its author is Dr. Michael Foster, F.R.S., and its tone is as genial as its treatment is scientific. "Necessary vivisection," he says, "cannot be called cruel"; while "any attempt to draw up for the guidance of others a general definition of necessary and unnecessary vivisection must prove utterly futile." If the physician experiment recklessly and needlessly, he becomes cruel, and, being cruel, will thereby be the worse. If he experiment carefully and heedfully, never causing pain where it could be avoided, never sacrificing a life without having in view some object, to attain which there seemed no other way, remembering that whoever "tortures" either dead or living nature carelessly will get no true response, there is no reason why his moral nature should suffer even ever so little tarnish. Such is the gist of Dr. Michael Foster's contention, and readers of THE LANCET will recognise it to be identical with that always urged in these columns.

THE mortality from small-pox shows no sign of diminishing in the Punjaub, the suffering caused by the disease being very severe in some of the native villages. The sanitary commissioner of the province has opportunely issued a circular in which the protective power of vaccination and revaccination is pointed out. The municipal committees of the Punjaub should bestir themselves in the matter. An epidemic of pleuro-pneumonia in the Ambálah gaol was checked by the complete segregation of the sick. The place is now healthy.

AT an inquest held at Oldham a few days ago, on the body of a child, it was shown that death was attributable to the inhalation of foul gases from a slopstone pipe communicating with the drain. The coroner stated that in those parts of his district where the pipes were connected with drains, he had, on the average, once a fortnight brought before his notice a similar case, in which death was caused by the effluvium arising from defective pipes. The supineness of the local authorities must be very great in permitting the existence of such evils.

THE *Pall Mall Gazette* states that by the death of Mr. Robert Brett, a surgeon of Stoke Newington, the Church of England has lost one of the most earnest of her laity, and the High Church school one of its most prominent leaders. Mr. Brett had of late years devoted himself almost exclusively to church work, and it was largely owing to his energy and influence that several of the new Haggerston churches were erected.

A PROVINCIAL contemporary publishes this week a telegram from its Bermuda correspondent, reporting a very severe outbreak of malignant yellow fever on board Her Majesty's ship *Aboukir*, at Jamaica. Nearly every case proved fatal, no less than twenty-seven of the crew dying, including two officers. We shall wait with much anxiety for the confirmation of the report. The *Aboukir* is said to have, in addition to her regular crew, 200 supernumeraries on board.

THE Obstetrical Society of Philadelphia lately elected the following gentlemen honorary members:—Dr. Robert Barnes, London; Dr. J. Braxton Hicks, London; Dr. Alfred H. McClintock, Dublin; Dr. J. Matthews Duncan, Edinburgh; Dr. Karl Braun, Vienna; Dr. Edward Martin, Berlin; Dr. Carl Schroeder, Erlangen; Dr. A. H. de Paul, Paris; Dr. A. Courty, Montpellier; Dr. C. G. Fabbri, Bologna.

Two deaths arising from excitement are reported to have occurred during the West Gloucestershire election, one, we regret to add, being that of a highly respectable medical practitioner, Mr. Edward Long, M.R.C.S., of Thornbury. The unfortunate gentleman was on his way to the poll to record his votes in favour of Colonel Kingscote and Mr. Berkeley, when he was seized with a fit and died almost immediately.

THE lay press, we are glad to see, joins us in impressing on the incoming Government the necessity for sanitary reform. The *Daily Telegraph* comments ably on Lord Derby's speech at the festival of the University College Hospital, and calls upon the Conservative leaders to keep true to their promise of an improved hygiene. The *Echo* devotes a leader to the same speech in a similarly gratifying strain.

THERE are few professional or scientific men, on whichever side of the two political parties they are ranged, that will regret the rejection of Mr. Ayrton by the Tower Hamlets electors. His courteous treatment, while Commissioner of Works, of Dr. Hooker, must be fresh in the memory of our readers, while his aptitude for art and science and appreciation of their workers will never be forgotten.

THE returns of the Manchester Sanitary Association for the week ending Jan. 31st show that in that period 1721 cases of disease were observed in the public practice of Manchester and Salford. The first case of small-pox that has occurred in Manchester for some time was reported during the week. The death-rate, however, is still high—30·8 per 1000.

HER Royal Highness the Princess Beatrice has kindly presented, through Sir Wm. Jenner, Bart., an interesting scrap-book for the use of the children's wards of University College Hospital. This is an example which cannot be too often followed, and we commend it to the notice of the charitable in the metropolis.

THE anniversary festival of the Hospital for Sick Children, Great Ormond-street, was held on Wednesday evening, at Willis's Rooms, under the presidency of Sir F. Goldsmid, M.P. During the evening, subscriptions to the amount of £2610 were announced. Funds are urgently needed towards the completion of the new building.

Mr. J. D. Jeffrey, Dr. Woodward, and Mr. J. R. Buck, have been elected medical officers of the Worcester Dispensary and Provident Medical Association. If we mistake not, all three of these gentlemen hold union appointments. Let us hope that they will be able to allure many from the ways of pauperism into the paths of providence.

LAST Sunday collections were made in many of the places of worship in Manchester, Salford, and the adjacent townships, in aid of the medical charities of the locality. In the morning the Bishop of Manchester preached to a large congregation at St. John's Church, Pendlebury, in aid of the funds.

AT an autopsy of the body of the late Professor Agassiz, made at Cambridge, U.S., the brain was found to weigh 53·4 ounces avoirdupois, equivalent to 1495 grammes. The cause of death was apparently the formation of a clot, about the size of a peach-stone, in the left ventricle.

ON Tuesday, at Guildhall Police-court, Alderman Carter condemned, and ordered to be destroyed, thirty-one bags of "something" denominated coffee, which Dr. C. M. Tidy had analysed and found to be undoubtedly unfit for human consumption.

THE Local Government Board has authorised the Greenwich Board of Guardians to expend a sum of £35,000 in erecting a new infirmary for the reception of sick paupers.

WE understand that Mr. C. Meymott Tidy, M.B., and Dr. Sedgwick Saunders, are candidates for the vacant post of medical officer of health for the City.

REPORT
OF
The Lancet Sanitary Commission
ON THE
SURGICAL WARDS OF ST. BARTHOLOMEW'S HOSPITAL.

IN commenting, two weeks ago, on Mr. Callender's successful series of compound fractures which is now being published in the "Mirror of Hospital Practice," we remarked that, "if it can be shown that such results may reasonably be expected in all similar cases, and that in these cases the successful issues were not chiefly due to the operation of accidental favourable circumstances, it would appear that a great blow has been dealt to the opponents of large surgical hospitals." Recognising, then, the importance of ascertaining, if possible, the causes which have determined the remarkable success which has attended Mr. Callender's hospital practice for at least more than two years, we have thought it desirable to examine carefully the conditions which surround a patient submitted to surgical treatment in St. Bartholomew's Hospital. Although in the subjoined report our remarks may apply more particularly to the practice of Mr. Callender, it is only just to the other surgeons of this hospital to say that the general mortality after operations at St. Bartholomew's is exceedingly low—lower, in fact, than at any other hospital with the statistics of which we are acquainted.

In the first place we directed our attention to the wards, which are large, lofty, well ventilated, and well lighted. Their length is about 70 feet, the breadth about 30 feet, and the height varies in different wards from 13 feet to 15 feet. They are lighted and ventilated by means of five windows on one side and one window at each end. On one side opposite the five windows is a large fireplace, with a very wide chimney. The grate of the fireplace is so set that the lower bars are a little below the level of the top of the mattress on the beds, so that the current of air from the doors passes below the beds. The side windows and one of the end windows open directly into the outer air, but the other end window opens into a large corridor and staircase, which in turn communicate with the large open square. The windows are kept open day and night, and the air is constantly renewed. At our visits we have never discovered any disagreeable condition of the air. To prevent draughts falling on the patients when in bed each bedhead is protected by a curtain, which is suspended from a bow-shaped iron rod let into the wall. The floors of the ward are of ordinary deal wood, and are washed twice a week with soft-soap and water. Each ward contains thirteen beds and a cot, six beds and the cot being placed at the same side of the ward as the windows, and the remaining seven beds being on the opposite side. By this means each patient is allowed an average of from 1200 to 1800 cubic feet of air, which is constantly being renewed. The water-closet, as in too many other old hospitals, is placed at one end of the ward. We were pleased to notice that the lockers by the side of each bed were not used as receptacles for stale, stinking urine, but were all clean, and without offensive odour. The *pôt de chambre* is placed under the bed, and always emptied and cleansed immediately after use.

Being satisfied with the condition of the wards, we next examined the condition of the patients and the general administration of the wards. It is an invariable rule at this hospital that before an operation is performed the patients are so distributed in the wards that there shall not be too

large a number of wounds in the same ward or too many cases near each other. The patient's general condition is always carefully noted, and, except in urgent cases, no operation is performed till the patient has been "prepared" for it and for the mechanical restraint that may be necessary afterwards. For instance, if a patient be about to suffer amputation, the limb is generally slung for a few days previously in the same position that it will have to rest after the operation. By this means the patient is, as it were, drilled to the position, "so that," as Mr. Callender says in the last volume of the Hospital Reports, "it may not come upon him unawares as a discomfort, added to those inseparable from an operation." Everything being so far satisfactory, and the preliminaries arranged, the patient is submitted to the operation — say an amputation of the thigh. This is generally done by making two skin flaps—a long anterior and a short posterior—and then dividing the muscles with one sweep of the knife. All the vessels are then twisted, and when the bleeding has ceased, the surface of the wound is washed with a solution of carbolic acid (one to twenty of water). The flaps are then drawn together with silver-wire sutures, so arranged that an opening is left at the outer angle of the wound for the insertion of a drainage-tube. Great care is always taken that all the manipulations shall be gently performed. The limb is then dried and laid on a splint of peculiar construction, which is carefully padded and covered with oiled silk or gutta-percha tissue. The wound is now lightly covered with lint soaked in carbolic oil (one to five), care being taken not to turn the lint under the stump, or it will be difficult to remove it in the subsequent dressings. Over this several folds of lint soaked in carbolic oil are placed, and the stump is then fixed to the splint by a few turns of the bandage. Above this a thick layer of cotton-wool is placed, and then secured by a bandage. The drainage-tube and the splint are so peculiar in construction that it will be well to describe them more in detail. The drainage-tube consists of a silver tube perforated at many points, and which is furnished with a light galvanised metal spring, which can be protruded from the end of the tube which lies in the wound, and made to expand like the arms of the letter Y, so as to prevent it falling out. The splint which is used for the support of the thigh stump is ingenious and simple. It consists of two portions of metal about five inches long, which are concave from side to side to receive the stump. These two portions are united at the back by a hinge, and kept in the same straight line by means of hooks at the sides. By this device the end of the stump which is placed on the proximal portion may be readily reached and easily dressed by unfastening the side hooks and allowing the distal portion to fall back, when the end of the stump may be dressed without the slightest disturbance. Should any discharge collect between the under part of the stump and the splint, it will, of course, be necessary to raise the limb and clean away the discharge. But, as a rule, this will not be required more than once a week or once every four days. The splint is then swung on two horizontal bars of iron, which are fixed by a vertical portion to the foot of the bed. This arrangement allows of a slight movement of the stump, and gives all the advantages of the cradle without the annoyance of the vertical supports of the usual apparatus. Every precaution is taken to keep the air immediately surrounding the wound pure and constantly changed. This is accomplished by means of the cradle, and by tubes passing from under the bed-clothes, or by turning up a corner of the bed-clothes.

Twenty-four hours after the operation the wound is usually dressed for the first time, and the manner in which this is done possesses several peculiarities worth noticing. The outer bandage is cut through and turned back; the cotton-wool is then removed, and the inner bandage divided along its front, and turned back, but not removed. The carbolised oiled lint is next removed. The wound is then carefully cleaned, and all the discharge removed by means of a camel's-hair brush which has been kept in a solution consisting of one part of carbolic acid in four parts of rectified spirit. Before use the brush is carefully dried on a piece of lint, in order that the spirit and carbolic acid may not irritate the wound, and the discharge which is taken up by the brush is cleaned off by the same means. When all the discharge has been removed, the wound is redressed in the manner already described. To prevent the possibility of the inoculation of the wound of one patient with discharge from the wound of another, each patient has his own brush, which rests in the carbolic and spirit solution in a test-tube at the bed-head. When the patient is recovered the brush is destroyed, so that the same brush is never used for two different patients. In some cases, as ovariotomy, a fresh brush is used at every dressing.

For patients who have sustained injury to the upper limb which necessitates rest in bed, Mr. Callender has devised an angular splint with outriggers, to which cords running over pulleys are attached. By this means the patient may elevate or depress the limb at will, and without pain or difficulty.

As to the *personnel*, we may remark that there is one sister and three nurses to every twenty-eight surgical cases during the day, and one nurse at night. One house-surgeon and five dressers attend to nearly one hundred in-patients as well as their share of the casual out-patients. The house-surgeon is solely responsible for all operation cases for at least a week after their performance, the dressers merely assisting. Mr. Callender, moreover, sees his cases every day, and either dresses the wounds himself for the first few days or personally superintends the dressing. Careful note is taken by the dressers of all the functions of the body, and every abnormal condition is noted on the patient's paper, which hangs over the head of the bed, so that a visitor, by reading the notes of the case, will become at once possessed of every sign or symptom of importance which has been observed during the patient's sojourn in the hospital.

Notwithstanding the successful working of the present plan we must protest that we think the dressers at St. Bartholomew's are greatly overworked. Five dressers are not sufficient to attend to so large a number of in-patients, as well as to attend at least an hour or an hour and a half in the morning to the casual cases in the "Surgery." Not only so, but in the "taking in" week each dresser is in turn expected to be on duty twenty-four consecutive hours, from midnight to midnight. Seeing that there is no proper and decent accommodation for the dresser, it may be easily urged that as a matter of fact he is only on duty from nine in the morning till twelve at night, and that any casual cases coming after this are seen by students living in the college, whether dressers or not. But the fact remains that each dresser is asked and expected to do a long and arduous day's work without sleep.

It only remains to be said that all cases of erysipelas, pyæmia, and delirium tremens are always kept in wards apart from the general patients.

It appears, then, that ventilation of the wards and of the wounds, cleanliness, and the removal of all offensive and decomposing matters, the "preparation" of patients for operation, the non-aggregation of a large number of wounds in a given space, isolation, personal attention, and personal hygiene—in fact, the strict observance of the well-known rules of surgery, are the chief factors in the successful treatment of surgical cases in St. Bartholomew's Hospital.

PROFESSIONAL SKETCHES.

CIVIL AND PUBLIC SERVICE LIFE.

THERE are doctors and doctors: those of civil life are separate and distinct from those of the army and navy. They are different classes altogether; united by a very fine professional thread it is true, but so often separated by space, time, and the circumstances of fortune as scarcely ever to come into the closest juxta-position. Doctors are seldom such cosmopolitan sort of fellows as to lose all tinge of their early training and predilections, whether in or out of the service. From the "complete professional minded" type to their antitheses, the most incomplete and unprofessional ones, there is something to indicate the man's training, something which cannot be got rid of. Like Tom Moore's vase, notwithstanding constant use and abuse, disasters and dilapidations, the vessel of professional lore retains its scent. Even medical officers are not like so many

sheep requiring a shepherd to distinguish their respective marks of identity. On the contrary, they are diversified and of many types, professional and national: from the frugal, canny Scotchman to the prudish Englishman or the shorn Irish lamb, to whom Thackeray declared Providence tempered the wind; from the toiler in professional pursuits to the idler in garrison gaieties; from the medical officer in whom the medical is most and the officer least, to him who is officer of officers, and possesses a more intimate acquaintance with everybody's duties on a field day than with his own in a hospital; from him who is a swaggerer and a bully in spirit, to him who never had any spirit to boast of, but was "all of a tremble" at the sight of a general, and possessed of about as much back-bone as a jelly-fish. But the incentives to action in civil and official life are so different that the manifestations of one and the same spirit are so varied as to be scarcely recognisable. In civil life the desire to please and the necessity of pleasing will convert the inwardly irritable into the outwardly bland practitioner, kneading his invisible soap between the "itching palms for gold." The love of notoriety of some kind, the desire to keep one's name before the public, in even some able men, deteriorates their moral and intellectual natures. You find their handiwork under every stone, and you see their names in many places—professionally safe places, of course, if possible. They are, in reality, misplaced advertisers, who would have invented something, patented it, and made their fortunes in no time in commercial life. Then there is the desire to be first—to cultivate science as the end to a living, and a good one. This makes them uncommonly reticent in giving "points," but sharp enough in seizing them and in adapting them to their own observations, with a view to speedy publication lest another should forestall them. Then there are the men who cultivate mannerisms. They are taciturn, free, frank, or mysterious; abrupt, as if they could spot your complaint by the cut of your garments, and read gout or sciatica on your walking-stick; or complacently calm, listening to a long story about a commonplace ailment, as if there might lurk an unsuspected source of cancer or consumption in a common catarrh. Then there are those who are emphatic about trifles; those—and their number is limited, for it requires tact and talent—who strive to prick their patients' ears by an apparent paradox; those—duller and more numerous—who strive to impress their consultants with the systematic carefulness, minuteness of detail, and elaborate explanations which they affect, or to take their patients' imaginations captive by the display of appliances and instruments, which better serve the end of those who wield them by the Greek terminology by which they are named than by discovering what ails their patients' insides. We leave out the great class of specialists as beyond our power to classify with the necessary justice and discrimination. To sum it all up in other words: the temptation to indulge in a little humbug or an ill-concealed dash of charlatanism proves too much for them. There are "stars" in the medical as in the theatrical world who play to the "gods" in the gallery. Their reputation is generally short-lived, if they have not something behind their acting, however consummate; for, happily, those "whom the gods love die young"! There is a good deal of human nature in man, as Artemus Ward says; and we must not be too hard on these weaker brethren. They prefer honesty, but they find their patients do not; and they are driven to take the same road to success that the quaker did who denied that honesty was the best policy, in consequence of his having tried both.

Such are some of the small arts which men in civil life are tempted to practise, but from which their *confrères* of the public services are, in a great measure, free. But every rank and every walk of life has its charlatans, its impostors, its toadies and snobs, distributed amongst its honourable gentlemen, honest workers, and original, independent thinkers. The tendencies of character may be discovered very early in life, and neither competitive examinations nor any other process will serve to exclude the sneak, nor will any moral or mental training efface the snobbishness of the snob, or prevent those qualities, be they good or bad, which underlie the diversities of character from having full play in that struggle for existence which affects all classes.

The pursuit of Medicine is a noble calling, especially in this, that its duties are all favourable to the exercise of benevolence, and so many incitements to virtue; and there is no profession that can boast a larger number of really benevolent and able men than the medical. The medical officer of the public service is freed from many temptations, and liberated from the necessity of practising the little urbane hypocrisies, to which so many in civil life are exposed. What is, according to our criterion, the best type of army doctor? The best type of medical officer is a straightforward, frank, energetic sort of fellow, with a real interest in his work, some love of adventure, and a taste for science and general literature. Professional or any other kind of priggishness is an abomination unto him. He is pliant enough to be practicable and ready to adapt himself to circumstances; and he has a lively, but not an irritable, conscience, or one void of offence perhaps, with courage enough to put his foot down and keep it there when requisite. Socially, he is a genial, clubbable man. Such men are little known beyond the circle within which their duties are circumscribed; but in this they are valued and respected, and the sum total of their influence—made up of many small things perhaps—is very great. A man of the right stamp is known almost at once. He has clearness of head and directness of aim, and that urbanity in the small affairs of life which tends so much to make life pleasant and to indicate "breeding." He knows his position, keeps within it, and consequently maintains it. He is a doctor first of all, and his professional information and tastes are not so much veneering. For spurs and uniform he cares little. He would, on the whole, prefer his uniform to be as simple as possible, so that it is consistent with the maintenance of his proper position as an officer and a man of education. The medical is not so subordinated to the officer in him as to submerge his professional identity. The class whose talk is mainly of "relative rank" and their own rights are a bye-word to him; and the discussions in military papers about combatants and non-combatants, precedence at mess and the like, are an abomination. Not that he does not entertain a strong opinion on these matters, which he can on occasion express with firmness. He is not loud or demonstrative in speech or dress, and he has a repugnance to a cocked hat, because it is ugly for one thing and ridiculous for another. He has no very exhaustive knowledge of regulations; the pivots round which he regulates his official conduct are common sense and conscience. He has temper enough to prevent his being imposed upon; and he remembers that he stands between the State and the common soldier to see that both get their due. He is somewhat cosmopolitan in his tastes and opinions; and his knowledge and reading are not by any means so accurate as wide and varied. He is sceptical of theories and hypotheses of all kinds, and bothers himself less with attempts at assigning the due proportion of the different factors at work in producing a disease than in devising a plan for saving the remainder of his men from contracting it. He has assimilated what he has learnt; he works at his microscope, and in studying the histology of a "corn" he has an eye to the soldiers' boots; he remembers, in short,

that he has to be prompt in judgment and practical, to diagnose and treat a disease, to remedy its causes, and prevent its spread. We do not say that such men are the most successful as the military world counts success, nor do we think that the army offers many advantages to men of energy and ambition with good professional training. The position of the service itself is very far from what it should be. Still the career of a medical officer of this stamp —and their number was never very large, and it is not increasing—is one of great usefulness, and the share of respect and affection as well as of happiness that falls to his lot is not altogether insignificant.

THE FLOATING HOSPITAL AND INVALIDING ARRANGEMENTS OF THE ASHANTEE WAR.

THE military officers and the medical officers on board the hospital ships employed in the Ashantee expedition were furnished with printed instructions from home for their guidance. As the war may be practically regarded as having terminated, all interest in it will soon become dissipated, and the Ashantee expedition will very shortly be regarded as an old almanac. The arrangements detailed in these instructions are stated by our correspondents to have been universally approved, and they strike us as being particularly clear, and their nature and scope will doubtless possess some interest to those of our readers belonging to the military and naval services in this country and abroad. The first portion of the instructions defines the powers and responsibilities of the different services and the relations of the medical officers and paymaster of the Royal Navy, and it is signed by the Adjutant-General; the second is for the guidance of the senior medical officer on board the *Victor Emanuel*, and bears the signature of Surgeon-General Muir, as the representative of the Director-General. The following are some of the principal arrangements on board the *Victor Emanuel* and auxiliary hospital ships:—The navy undertake the lodging, victualling, and conveyance of the sick, and furnish everything necessary for these purposes; the army furnish medical and other attendance on the sick, provide all articles of hospital clothing and bedding, medical, surgical, and hospital appliances used by them, and undertake the washing of all hospital clothing and bedding. This principle of action is to be applicable, as far as practicable, to all the ships engaged in the expedition when utilised for the reception and transport of sick soldiers. Reserve stores of bedding, warm clothing of all kinds, medicines, medical comforts, &c., were placed on board the *Victor Emanuel* for issue to the several batches of invalids proceeding from the Gold Coast. A programme for the floating hospital and other arrangements for the reception and transport of sick sets forth the method to be followed for the evacuation of the floating hospitals. In addition to the bi-monthly steamers of the British and African line for carrying sick from Cape Coast to Liverpool, H.M.'s *Simoom* was to be stationed off Cape de Verdes as a depôt ship for invalids in transit, together with one of the small transports to act as her tender for procuring supplies. For the conveyance of invalids to St. Vincent a fast steamer was to be despatched every ten days (calling at Sierra Leone to land any patients if required); and for their further conveyance from St. Vincent to Southampton, accommodation had been secured on board each of the three packets leaving the Cape of Good Hope every month, and calling at St. Vincent for the purpose, as well as by two steamers per month belonging to the Royal Mail Brazilian line. In addition to the foregoing arrangements for evacuating the hospital ship *Victor Emanuel*, the *Himalaya*, *Tamar*, and *Sarmatian* were to be available as floating barracks or auxiliary hospitals if required; and the *Manitoban* was also available for bringing any large number of invalids direct to England or Gibraltar.

Arrangements have been made, it is believed, for utilising Gibraltar as a sanatorium for those invalids unfit to return to England in winter. The provisions to guard against the introduction of infectious diseases into Gibraltar or other foreign port were of a very stringent character. The instructions detail very fully and precisely the method of procedure to be adopted in the event of any infectious disease appearing on board any of the floating hospitals, and provide for the removal of any of these ships to another latitude in the event of its being deemed necessary. The senior medical officer is charged with the responsibility of seeing that invalids going home are fit to undertake the voyage, and for making all the preparations for their proper care, feeding, and clothing. It is pointed out that the special cots for surgical cases, and for severe medical cases, on board the *Victor Emanuel*, have been so distributed as to secure effective sanitation on board, and means have been provided for carrying out the system of isolation and disinfection of cases of wounds, essentially similar to that suggested by Mr. Callender at St. Bartholomew's. The medical and surgical stores, instruments, and appliances at disposal are stated to be large and in great variety, and to embrace the very newest, as well as the older designs.

Correspondence.

"Audi alteram partem."

PYÆMIA IN PRIVATE PRACTICE.

To the Editor of THE LANCET.

SIR,—I send you the notes I have of the only case of pyæmia which has occurred to me in private.

On the morning of December 9th, 1869, my friend, Dr. Ramskill, sent to me Miss F——, aged thirty-seven, in order that I might advise her concerning some symptoms which had for a time considerably worried her. She complained principally of a hæmorrhage which frequently recurred in gushes, and in the intervals a profuse watery discharge, with an increasing vaginal tenesmus. Upon examining the lady I found a fibrous polypus of the size of a Tangerine orange attached by a rather broad pedicle to the anterior wall of the body of the uterus. The growth had been protruded wholly from the uterine cavity, and was hanging well down into the vaginal canal. I learned that until the appearance of these conditions her general health had been excellent. I could discover no evidences of any form of visceral disease whatever, nor had her strength been materially diminished by the hæmorrhage, for she was by no means blanched. I made known to Miss F—— the nature of her malady, as also the very simple proceeding necessary to rid her of her trouble, and at her request I went down on the 12th of December to her residence in Surrey, and speedily, by excision, removed the polypus. A very slight quantity of blood was lost at the time, and I left her one hour after the operation very comfortable. All went on well until the 16th (four days after the operation), when I was hastily called to see her in consequence of a severe rigor with which she had been attacked early in the morning of that day. Before my arrival a second rigor, followed by much depression, had produced a marked alteration in my patient's condition and appearance. I need not here detail the daily progress of the case; suffice it for me to say that Miss F—— died on the thirteenth day after I had operated upon her, with all the symptoms of pyæmia well marked and clear.

At the time this case happened I entertained a strong belief that I had been brought in contact with a case of pyæmia which I had conveyed to her, and I instituted a searching investigation with this result. I did not take the poison to my patient from any case in hospital, for at that time my duty at the London was wholly with the out-patients, and for three weeks I had not been into any of the wards. Five weeks had then elapsed since I had been called to a patient of the General Lying-in Charity of the London Hospital; that was a woman out of the house, upon whom I had performed craniotomy, and who had made a good recovery. I communicated with every medical man I had met during the previous month, and in one instance only of the whole number had I seen any case that could possibly be associated with my unfortunate patient. The case I refer to was a mild case of puerperal peritonitis I had seen three weeks previously at Old Ford in consultation, and which had recovered, and that I dismissed from further consideration as being free from all suspicion of blame in the matter, and I was driven

to the conclusion that Miss F—— had died of pyæmia autogenetically produced, under circumstances which hitherto I had regarded as most unfavourable to the production of this terrible malady. The symptoms, progress, and termination of her case corresponded precisely with those I had become but too familiar with in the several outbreaks I had witnessed in public institutions, and yet I can offer no explanation whatever of its occurrence. We had to deal with the hard facts that a woman, barely of middle age, residing in one of the most healthy and beautiful parts of Surrey, after an obstetric operation of perfect simplicity, separated entirely from every source of contagion, had fallen a victim to a blood-poisoning in a manner then, and happily now, unique in my experience.—I am, Sir, faithfully yours,

Brook-street, Grosvenor-square, Feb. 1874. JAMES PALFREY.

THE "BOUGIE CONDUCTRICE."

To the Editor of THE LANCET.

SIR,—I am glad that Mr. Rushton Parker likes the urethrotome, but if it be used in the manner described by him at p. 162 of your journal of January 31st, it will repeat some of its Parisian accidents. It is now twenty years since the instrument was brought into practice by M. Maisonneuve, and it has since then been much improved by M. Voillemier, Prof. Gauley, and others. There are three points which call for remark. In the first place Mr. Parker takes it for granted that when the "bougie conductrice" has passed down the urethra it has entered the bladder, and it is in this assumption that the danger lies. The bougie may have gone into the bladder, rectum, or false sac, and it is for the surgeon to verify the situation of the bougie before he passes the knife into the urethra. Now this can only be done by using the "sonde à vis," which is unknown in this country, or by inserting in the sound a stylet which shall fill the slit, so that when it is withdrawn urine will flow if the bougie has gone into the bladder. Secondly, Mr. Parker states that the blade cannot injure the healthy part of the urethra; but the contrary has been proved in Paris, hence M. Voillemier's modification to guard the blade. Thirdly, French surgeons are now of opinion that the blade ought to slide along the convexity of the sound, and not the concavity as described by Mr. Parker. I would recommend to him Prof. Gauley's tunneled urethrotome, which is vastly superior to the one he has illustrated.

As for "divulsion," "dilatation instantanée," "immediate treatment," or any other synonym by which the process of tearing open a man's urethra may be concealed, it has fully justified the almost universal condemnation passed upon it by Parisian surgeons. It has acquired the unenviable distinction of being the most fatal operation known for stricture, and I am aware of thirty deaths following its use by different surgeons. The operation has been abandoned or condemned by Sir William Fergusson, Mr. Thos. Bryant, Mr. Walter Coulson, Mr. O. Pemberton, Mr. H. Smith, Prof. Stokes, and others.

I remain, Sir, your obedient servant,

Portman-square, Feb. 4th, 1874. W. F. TREVAN.

THE WATER-SUPPLY OF ROTTERDAM.

To the Editor of THE LANCET.

SIR,—In consequence of the prevalence of cholera at Rotterdam, and the importation of a solitary case into this city some weeks ago by way of the Thames, I inquired from what source the steamships trading between that port and Rotterdam were supplied with water for drinking purposes, and found that in several instances this water was regularly taken from the Maas as the vessel steamed up the river. This stream, as you remarked last week, receives nearly all the sewage of Rotterdam, and I believe that in consequence of representations made by this port sanitary authority, the regular traders have ceased to procure their drinking water from the Maas. The water-supply on board ship, and the condition of the tanks that contain it, should always command the special attention of port medical officers of health.—I am, Sir, your obedient servant,

HARRY LEACH,
Medical Officer of Health for the Port of London.

Port Sanitary Offices, Deptford, S.E., Feb. 9th, 1874.

PARIS.

(From our own Correspondent.)

ON Sunday last there was a general meeting of the Society for the Protection of Childhood, at the Vaudeville Theatre. M. Boudet, the President, opened the proceedings of the day with a short and substantial speech, after which Dr. de Ranse, the esteemed and talented editor of our Paris contemporary, the *Gazette Médicale*, read the report of the special committee appointed to give away the prizes and rewards of the Society for the last year. The general secretary then announced the names of those who had earned these various distinctions, as well as those of medical inspectors, mothers, and wet-nurses, for their zealous co-operation, as also those of the laureates who had been successful at the *concours* of the Society. This *concours* had consisted in writing for a prize on the question of "The Means of Generalising Maternal Nursing." Out of sixteen candidates the successful names were declared to be, Dr. Auner, of Brest (first prize); Dr. Segay, of Bordeaux (second prize); and MM. Bordier, of Basancourt, and Bedel (each a silver medal). The latter end of the sitting was agreeably taken up by a very spirited and *spirituel* lecture by that most successful of Paris *conférenciers*, H. de Lapommeraye, and a concert, both instrumental and vocal, performed by the band of the Garde Republicaine and some of the best singers at the Paris theatres. M. de Lapommeraye was not only exceedingly sparkling and felicitous in the more cheerful parts of his lecture, but he deeply moved his auditory by his description of the sad tortures to which so many infants were subjected in the hands of mercenary wet-nurses. He remarked that it was a disgrace to our generation that this Society should be the younger sister of the Society for the Protection of Animals, and that in a huge city like Paris it should only number one thousand adherents. It was a farce to talk continually of humanitarian and patriotic feelings when the hope of the nation and the future of the race—namely, children—were neglected.

At one of the last sittings of the Municipal Council, one of the members—M. Hérold—presented a report claiming the assistance of the Council for a certain number of medical men whose duties as medical officers of the town ended with the year 1873, and whose position deserved the consideration of the Council. It appears from the report of M. Hérold that no pension is provided for these medical servants of the town, though all the other kinds of officers attached to the *Etat Civil* are provided for in that respect. Such an exception, touching some of the most useful members of the *personnel*, whose duty it is to visit private houses and report births and deaths, is a regrettable anomaly. The Council of course voted the grant of assistance demanded.

Several new medical journals have been started here, amongst which are two on obstetrics, the want of which was generally felt. One of them is conducted by such well-known men as Professor Pajot and Dr. Gallard, of Paris, and Dr. Courty, of Montpellier. The first number, which has just appeared, contains the following articles and papers:—Introduction, by Pajot; on Peri-uterine Phlegmon, by Boissarie; on the Employment of the Actual Cautery in Uterine Affections, by Leblond; Purulent Affections, by Longuet; Eclampsia, by Charrier; General Review, by Gallard. The *Annales de Gynécologie* will be published on the 15th of every month, in fasciculi of about eighty pages.

Paris, Feb. 10th, 1874.

BOOKS ETC. RECEIVED.

Mr. Armstrong: Introduction to the Study of Organic Chemistry.
Mr. T. Morrison: English Composition.
Mr. A. Wilson: The Student's Guide to Zoology.
Mr. T. Nash: Cicero's Oration "Pro lege Manilia."
Mr. Stimpson's Singing Class-Book.
Dr. Guy: Public Health.
Mr. Harbison: Elements of Zoology.
M. Emile Souvestre: Un Philosophe sous les Toits.
Dr. John Murray: Observations on the Pathology and Treatment of Cholera.
Dr. Wyeth: A Handbook of Medical and Surgical Reference.
Mr. Hartwig: The Polar World.
Dr. Clarke: Sex in Education.
The Middlesex Hospital Reports.

Medical News.

ROYAL COLLEGE OF SURGEONS OF ENGLAND. — The following gentlemen passed the required examination and received the diploma in Dental Surgery on Jan. 30th:—

Bellaby, Goodman L., Nottingham.
Geldard, Richard, St. Austell, Cornwall.
Underwood, Thomas F. K., Gower-street.

Mr. W. K. Parker, F.R.S., will commence his course of eighteen lectures, "On the Structure and Development of the Skull in the Vertebrata," on Monday next, in the theatre of the College, at 4 P.M.

Mr. Le Gros Clark, F.R.S., the senior Vice-President of the College of Surgeons, has been appointed Hunterian Orator for 1875.

ARMY MEDICAL SERVICE. — The following is a list of candidates who were successful at the competitive examinations held at London in August, 1873, and at Netley in February, 1874, after having passed through a course at the Army Medical School at Netley:—

	Marks.		Marks.
* Langridge, G. T.	5243	Gubbins, W. L.	4370
Fowler, B. W....	5209	Thomsett, R. G.	4190
Webb, W. E.	4690	M'Quaid, P. I.	4173
Mapleton, R. W.	4650	Spencer, F. H.	3836
Wood, O. G.	4375	Ring, I....	3561

* Gained the Herbert Prize.

NAVAL MEDICAL SERVICE. — The following candidates were successful at the competitive examinations held at London in August, 1873, and at Netley in February, 1874, after having passed through a course at the Army Medical School at Netley, and who will receive commissions as Surgeons in the Royal Navy:—

	Marks.		Marks.
Hewett, F. C. C.	4317	Cooke, G.	3609
Preston, T. J.	4173	Pearson, W.	3554
Bedford, R....	3881	Vasey, C. L.	3140

PRESENTATION.—On the evening of the 16th ult., Dr. Macnab, of Loch Inver, Sutherlandshire, was invited to meet a deputation of the inhabitants of Assynt, for the purpose of presenting him with a silver service of plate along with a purse of sovereigns, as a mark of their high appreciation of his services and worth. The inscription on the plate was as follows:—"Presented to John Macnab, M.D., F.R.S.E., by a number of friends in Assynt, as a mark of esteem and regard for his services and worth."

Medical Appointments.

BOOTH, P. L., M.R.C.S.E., has been appointed Assistant House-Surgeon to the North Lonsdale Hospital, Barrow-in-Furness.

BURROUGHS, E. F. H., L.R.C.S., L.S.A., has been appointed to the Middleroy District of the Bridgwater Union, and to the Othery Friendly Society, vice Wm. Autey, M.R.C.S., L.S.A., resigned.

CONCANON, W. A., L.K.Q.C.P.I., L.R.C.S.I., has been appointed Medical Officer for District No. 8 of the Bedminster Union, vice Lloyd, deceased.

DALY, G. W., M.D., L.R.C.S.I., has been appointed Medical Officer, Public Vaccinator, and Registrar of Births &c., for the Ea'oath Dispensary District of the Dunshaughlin Union, Co. Meath, vice O'Reilly, resigned.

DAVIES, H., M.D., F.R.C.P.L., has been appointed Consulting Physician to the London Hospital, on resigning as Physician.

DOYLE, J., L.K.Q.C.P.I., M.R.C.S.E., has been appointed Medical Officer and Public Vaccinator for the Killanne Dispensary District of the Enniscorthy Union, vice Dyas, resigned.

EDGE, A. M., M.D., M.R.C.S.E., has been appointed Physician's Assistant to the Manchester Royal Infirmary.

EDGINTON, R. W., M.R.C.S.E., has been appointed Resident Surgeon to the Birmingham General Dispensary, vice Ravenhill, resigned.

FARQUHARSON, R., M.D., M.R.C.P., has been elected Lecturer on Materia Medica at St. Mary's Hospital.

HOPE, S. W., L.R.C.P.L., M.R.C.S.E., has been appointed Medical Officer and Public Vaccinator for the Tillington District of the Midhurst Union, vice Morris, deceased.

JAY, H. M., F.R.C.S., has been appointed Certifying Factory Surgeon to the Chippenham District, vice Kitchener.

JEYNES, W., M.R.C.S.E., has been appointed Medical Officer for the Kingston District of the Kingston Union, vice Kent, deceased.

KROOH, J., M.D., has been appointed Medical Officer, Public Vaccinator, and Registrar of Births &c., for the Annacarriga Dispensary District of the Scariff Union, Co. Clare, vice Roe, resigned.

MILLER, Dr. H., has been appointed one of the Acting Medical Officers of the Wirral Children's Hospital, Birkenhead.

PARKINSON, E. W., L.R.C.S.Ed., M.R.C.S.E., has been appointed Medical Officer for the Wimpole District of the Caxton and Arrington Union, Cambridgeshire, vice Carver, resigned.

PEARCE, E., M.R.C.S.E., has been appointed Medical Officer and Public Vaccinator for the Camelford District and the Workhouse of the Camelford Union, vice King, deceased.

PERCIVAL, G. H., M.R.C.S.E., has been appointed Resident Medical Officer to the Public Dispensary, Stanhope-street, Clare-market, vice Townsend, resigned.

PITTS, R. Z., M.R.C.S.E., L.S.A., has been appointed House-Surgeon to the West Herts Infirmary, vice F. G. Hamilton.

REDMOND, J. J., L.R.C.S.I., has been appointed Medical Officer, Public Vaccinator, and Registrar of Births &c., for the Kilmeadan Dispensary District of the Waterford Union, vice Renzy, resigned.

SAINSBURY, H., M.R.C.S.E., has been appointed Medical Officer and Public Vaccinator for No. 1 Oldbury District of the West Bromwich Union, Medical Officer to Messrs. Chance's Chemical Works, the Ancient Order of Foresters, and the Odd Fellows, Oldbury, vice Beatty, deceased.

SERGEANT, E., L.R.C.P.L., M.R.C.S.E., has been appointed Public Analyst for Bolton: £20 per annum.

TOBIN, G., M.R.C.S.E., has been appointed Medical Officer and Public Vaccinator for the Rivington District of the Chorley Union, vice Dawson, resigned.

WILSON, A., L.R.C.P.Ed., L.F.P. & S. Glas., has been appointed a Surgeon to the Newcastle-on-Tyne Dispensary, vice Anderson.

[In the following list—under the Public Heath Act, 1782—the letters "P.S.D." signify Port Sanitary District, "R.S.D." Rural Sanitary District, and "U.S.D." Urban Sanitary District.]

Districts, and Medical Officers.	*Salary per ann.*	*Area in Acres.*	*Population.*
Altofts, U.S.D.—Mr. W. D. Wood	£10	1700	3866
Bolton, U.S.D.—Mr. Edward Serjeant	£350	2000	90000
Bridport, R.S.D.:			
No. 1 Sub-district } Dr. W. H. Hay...		8884	
„ 2 „ }			
„ 3 „ Mr. G. M. Evans	Not	7756	16730
„ 4 „ Mr. W. Le G. Denziloe ...	fixed	5908	
„ 5 „ Mr. H. E. Norris		8670	
„ 6 „ Dr. W. H. Day...		503	
Burton-on-Trent, }			
Lichfield, } R.S.D.s			
Penkridge, } Dr. Wm. Webb ...	£900	223152	96710
Lichfield, } U.S.D.s			
Rugeley, }			
Congleton, R.S.D.—Dr. T. R. Fraser	£125	45985	18049
Dartford, R.S.D.—viz.:			
Bexley Sub-district—Mr. T. Wheeler	£40	6234	7390
Erith „ Mr. F. B. Jessett	£50	6317	12176
Farningham „ Dr. W. R. Ashurst ...	£40	27365	8839
Swanscombe „ Mr. G. R. Cooke	£30	8168	5641
Devizes, R.S.D.—viz.:			
No. 1 Sub-district—Mr. E. N. Carless	£12 10s.	6182	2185
„ 2 „ Mr. J. R. King...	£12	4473	1432
„ 3 „ Mr. G. Waylen...	£25	14737	2169
„ 4 „ }			
„ 5 „ } Mr. V. L. Trenor	£33 10s.	11790	2743
„ 6 „ Mr. H. W. Langdon ...	£12 10s.	4260	1754
„ 7 „ Mr. C. Hitchcock	£37 10s.	17150	4134
Dorchester, R.S.D.—viz.:			
Dorchester Sub-district—Mr. Alfred Emson	£2 2s.	1332	121
Broadmayne &c. „ Dr. J. P. Aldridge...	£12	15078	2195
Charminster „ Mr. John Good ...	£14	15391	3247
Puddletown „ Mr. Robt. Slade ...	£15	15755	2876
Maiden Newton „ Mr. E. M. Rendall	£12	15506	2559
Longbredy „ Mr. W. T. Boreham	£5 5s.	4857	534
Drayton, R.S.D.—Mr. W. H. Harding	£40	61637	14636
Durham, R.S.D.—viz.:			
No. 1 Sub-district—Mr. Wm. Boyd	£20	8847	3951
„ 2 „ Mr. R. N. Robson	£25	10094	11012
„ 3 „ Mr. W. C. Allen	£30	15530	16935
„ 4 „ Mr. J. W. Blandford ...	£20	6859	6146
Faringdon, R.S.D.—viz.:—			
Faringdon No. 1 Sub-dist.—Mr. F. C. Spackman	£10	12255	4845
„ 2 „ Mr. J. Knill... ...	£10	11621	2532
Buckland Sub-district—Mr. G. H. Maskelyne	£10	27290	4993
Shrivenham „ Mr. R. G. Wellaston	£10	14714	2721
Farnworth, U.S.D.—Mr. A. Kershaw	£40	1800	15500
Holbeach, R.S.D.—viz.:			
Holbeach Sub-district—Mr. H. Spencer ...	£25	23360	5141
Long-Sutton „ Mr. J. W. Measures	£25	30441	4619
Holbeach, U.S.D.—Mr. J. H. Spencer...	£15	21133	5332
Hucknall-Torkard, U.S.D.—Dr. W. M'Dermott...	£25	3432	5000
Keynsham, R.S.D.—Mr. A. E. W. Fox	£40	33358	22892
Kingston-on-Thames, R.S.D.—Dr. W. P. Jones	£150	—	12300
Lanchester, R.S.D.—viz.:			
Lanchester Sub-district—Dr. John Wilson ...	£50	25239	12616
Medomsley „ Mr. W. T. Bolton...	£50	13428	15226
Tanfield „ Mr. J. G. Hunter...	£50	10297	12706
Lincoln, R.S.D.—Dr. Chas. Harrison	£200	148754	25518
Llanfrechfa Upper, U.S.D.—Mr. John S. Cousins	£10	2250	2886
Loddon and Clavering, R.S.D.—viz.:			
No. 1 Sub-district—Dr. Robt. Ives Metcalfe...	£21 13s. 8d.	10660	2981
„ 2 „ Mr. T. H. B. Rodwell ...	£27 13s. 2d.	16399	3940
„ 3 „ Mr. G. Gillett	£26 1s. 2d.	14412	3544
„ 4 „ Mr. E. B. Adams	£27 12s.	11946	3305
Long-Sutton, U.S.D.—Mr. A. H. Haines	£10	4155	2716
Machynlleth, R.S.D.—Dr. David R. Pughe... ...	£5 for 3 months	5000	10052
Midhurst, R.S.D.:			
Tillington, Sub-district—Mr. S. W. Hope ...	£15	10231	2188
Petersfield, R.S.D.—viz.:			
No. 1 Sub-district—Mr. G. Pink	£21	18857	2553
„ 2 „ Mr. T. Moore	£21	9045	2885
„ 3 „ Dr. A. W. Leachman ...	£21	9067	2178
„ 4 „ Mr. J. Hird	£10	8903	1695
Redruth, R.S.D.—viz.:			
Gwennap and Stithians Sub-dist.—Dr. Harris	£40	12430	10575
Illogan „ Mr. Reed	£36	8010	9748
Gwincar and Gwithian „ Mr. Vawdrey	£16	7280	2718
Sandown, U.S.D.—Mr. P. C. Hayman	—	548	2320
Southwick, U.S.D.—Dr. R. Ayre Smith	£10 10s.	858	7000
Stourbridge, R.S.D.—viz.:			
Staffordshire, Sub-district—Mr. E. Turner ...	£75	6083	20893
Worcestershire „ Mr. G. P. Dunn	£75	7746	26197
Uttoxeter, R.S.D.—Mr. B. H. Herbert	£120	62800	14335

Births, Marriages, and Deaths.

BIRTHS.

COX.—On the 1st inst., at Sutton, the wife of W. A. Cox, M.R.C.S.E., of a daughter.

DAVEY.—On the 3rd inst., at Ryde, Isle of Wight, the wife of Alexander G. Davey, M.D., of a son.

M'CONVILLE.—On the 4th inst., at Elmbank-place, Glasgow, the wife of J. M'Conville, M.D., of a son.

MOORE.—On the 5th inst., at Stourport, Worcestershire, the wife of W. Moore, M.R.C.S.E., L.S.A., of a daughter.

PHIPPS.—On the 4th inst., at Clairville, Oxford-road, Manchester, the wife of G. C. Phipps, M.D., of a son.

STEVENSON.—On the 8th inst., at Caversham-road, the wife of Thomas Stevenson, M.D., F.R.C.P., of a daughter.

MARRIAGES.

CANN—COOPER.—On the 22nd ult., at Bishopstone Church, Thomas Martyn Cann, M.R.C.S.E., to Marion, daughter of Thos. Cooper, Esq.

WILLAN—HICKSON.—On the 5th inst., at the Parish Church, Melton Mowbray, G. T. Willan, M.R.C.S.E., to Elizabeth J., daughter of Thomas Hickson, Esq.

DEATHS.

ANNESLEY.—On the 8th inst., at Cheltenham, J. C. Annesley, M.R.C.S.E., Surgeon-Major Bengal Service, aged 41.

BATTISHILL.—On the 4th inst., John Battishill, M.R.C.S.E., of Spreyton, Devon, aged 69.

CASKIE.—On the 4th inst., John Caskie, M.B., C.M., of Stewarton, Ayrshire, aged 23.

FEGEN.—On the 7th inst., at Acre-terrace, Stoke, W. B. Fegen, M.R.C.S.E., Staff Surgeon R.N., aged 56.

KELLOCK.—On the 4th inst., Wm. Kellock, L.S.A.L., of Totnes, aged 78.

MACANN.—On the 4th inst., Arthur B. Macann, M.R.C.S.E., of King-street, Portman-square, aged 58.

PRIESTLEY.—On the 5th inst., H. Priestley, jun., L.R.C.P.Ed., of Sheffield, aged 26.

METEOROLOGICAL READINGS

(Taken by Steward's Instruments).

THE LANCET OFFICE, FEB. 12TH, 1874.

Date.	Barometer reduced to Sea Level and 32° F.	Direction of Wind.	Wet Bulb.	Dry Bulb	Solar Radia. in Vacuo	Max. Temp. Shade	Min. Temp.	Rainfall.	Remarks at 8 A.M.
Feb. 6	30·53	S.E.	...	28	...	32	27	...	Foggy
„ 7	30·36	S.	...	29	...	46	26	...	Foggy
„ 9	30·33	W.	...	29	...	38	25	...	Frosty
„ 10	30·54	E.N.E	...	33	...	36	27	...	Frosty
„ 11	30·49	E.	...	25	...	35	23	...	Frosty
„ 12	30·12	S.E.	...	31	...	38	24	...	Fine

Notes, Short Comments, and Answers to Correspondents.

DR. FRANCIS DELAFIELD, U.S.

THIS well-known physician in New York had a narrow escape from assassination on the 27th ult. A medical student, named Dawson, entered the doctor's reception-room, and, drawing a revolver from his pocket, shot twice at him, one ball grazing the doctor's head, and the other passing through the sleeve of his coat. A police officer passing by heard the shots, burst into the room, and seized the would-be assassin. The "difficulty," as the New York papers call it, originated in a dispute about money.

Surgeon T. Cody, (Bombay.)—The subject shall be borne in mind.

FEVER IN CAMBRIDGE.

To the Editor of THE LANCET.

SIR,—With reference to a correspondence connected with the prevalence of fever in Cambridge, I beg to send you the following notices relating to a former epidemic.

The British Imperial Calendar of 1810 states that "an alarming and contagious fever broke out at Cambridge, that almost all the students quitted the town." On hunting for an account of this, I found it described in the *London Medical and Physical Journal* for 1817, vol. xxxvii. Dr. Haviland here, in endeavouring to account for its origin, states that Cambridge has always, and with great justice, been considered as an extremely healthy town. He adds: "I am disposed to attribute it in a great measure to the state of the drains and ditches, which have been much neglected of late, whilst the population has greatly increased." A foot-note states "that active measures are now being taken to remove this cause of complaint." The cause, whatever it might be, was apparently local, and for some time the disease did not show itself in the neighbouring villages. He considered it to be contagious, and liable to spread amongst the members of a family, but not amongst nurses or hospital attendants. This fever confined its attacks to young persons, both students and townspeople, and amongst these the children were the chief sufferers. The proportion of cases that died of this disease was certainly great.

I remain, Sir, your obedient servant,

Edinburgh, Jan. 24th, 1874. W. J. BLACK.

THE SIAMESE TWINS.

THE families of the Siamese Twins are dead against a post-mortem examination, but are willing to sell the bodies for from 8000 to 10,000 dollars. Surgeons vie with showmen as prospective purchasers. It is probable that a company of physicians and others hailing from Philadelphia and New York, who are eager for an autopsy in the interests of science, will secure the twins, in which case a post-mortem will be held at the Jefferson College, Philadelphia. Dr. Hollingsworth, of North Carolina, gives a full account of their death. Chang had been complaining for two months before of feeling very ill; but had to accompany Eng on a cold frosty day to the house, some two miles distant, where Eng's family resided. Chang became chilled by the exposure; while his partner, seemingly quite well, grumbled because he had to sit by the fire. On the evening of the following day the twins retired to a small bedroom by themselves, but Chang was very restless. Some time between midnight and daybreak they got up and sat by the fire. Again Eng protested, and wished to lie down, as he was sleepy. Chang stoutly declined, saying that it hurt his chest to recline. After a while they retired to bed, and Eng fell into a deep sleep. About 4 A.M. one of the sons came into the room, and going to the bedside found that his uncle was dead. Eng, awakened by the noise, turned in the greatest alarm, and looked upon the corpse beside him. He was seized with violent paroxysms; but no physician was at hand, and before the arrival of Dr. Hollingsworth's brother, also a physician, from Mount Airy, three miles away, the twins were dead. The external aspect of the bodies has already been described in THE LANCET; but for some months before death no movements were observed in the band. Dr. Hollingsworth thinks they could not have survived a separation, as peritonitis would probably have set in. The bodies were laid in a tin box, which was then hermetically sealed. This was placed in a wooden box, and this again in a third box. The whole was deposited in the basement of a dwelling in the vicinity, and covered with powdered charcoal to the depth of two feet. Meanwhile we await with interest the purchase of the bodies by Jefferson College, and the report of the physicians upon them.

A Medical Officer of Health.—Mr. Brenchley, 22, Wormwood-street, E.C.

PUBLIC HEALTH RETURNS.

To the Editor of THE LANCET.

SIR,—My letter which you published in your issue of the 24th ult. appears to have been misconstrued. "Medical Officer of Health," in THE LANCET of the following week, considers my suggestion of occasional attendance at a Board of Guardians as beneath the dignity of the profession. At page 181 you advise, "as consulting the dignity of the profession, to seek permission from the guardians to examine the medical officers' books." This also is in effect suggested in my former letter. These books, or copies from them, are sent to each meeting of the Board, and can be seen in the ante-room. I do not see why your correspondent should not examine them "leisurely." Far be it from me to ask my professional brothers to work for nothing, or to do so myself; but is it business-like to suppose that a Board of Guardians, being at the same time the sanitary authority, and having these returns at their disposal, will be so simple as to pay for them? Allow me to remind "Medical Officer of Health" that relieving officers have only knowledge of the wants of paupers. I seek and receive information of epidemic sickness from other sources, and as advised by the Local Government Board; though I find a reference "occasionally" to the relief books of the union medical officers useful, not alone as a guide, to a certain extent, to the amount and class of sickness prevalent, but as absolutely necessary in order to make out the "useful" return, over which, I still maintain, an unnecessary "fuss" has been created. In another article in the same LANCET the writer does me the injustice of mixing up my remarks on this particular return with the main question of public health reform. It is said, "When you have a bad case abuse your adversary." In looking on me as such (most erroneously remember), the writer of the said article slips into the argument, and tries hard to prove (most unwittingly no doubt) that the union is the best and most workable area. On this I express no opinion now. The Local Government Board sanction the payment of registrars of deaths by sanitary authorities; the other returns can be compiled as I pointed out, and there should be little difficulty in getting information from public institutions. I have certainly to thank my sanitary authority for their assistance and courtesy; and, notwithstanding the wholesale condemnation indulged in in your columns, I adhere to the old adage, "Where there's a will there's a way." I decline to condemn as obstructives all authorities, from the President of the Local Government Board downwards. I believe a little of the "tincture of time," not trying to do too much all at once, but giving the Act a fair trial, will tell well, both as regards future legislation, and in finding out where improvement is really required. I shall not follow the example of the writer of the annotation, as I know well the uselessness of wordy abuse and angry denunciation.

I am, Sir, your obedient servant,

February, 1874. C. J. DENNY.

*** We give our correspondent whatever benefit he may think will accrue to him from having the "last word" so far as we are concerned, leaving our readers to form their own opinion upon the controversy.—ED. L.

An Inquirer, (Bristol.)—Our correspondent probably alludes to Dr. Hartshorne's Essentials of Practical Medicine, third edition, which may be procured of Trübner and Co., Paternoster-row.

Mr. Louis Cane.—Inquire of Mr. Robert Cecly, Aylesbury; or of Dr. Ballard, Islington.

A QUERY.

To the Editor of THE LANCET.

SIR,—Would some of your readers be kind enough to furnish me with some formulæ for mixtures suitable for a self-supporting dispensary, or one nearly self-supporting? I wish, therefore, to get them efficient but inexpensive.

Your obedient servant,

King's Langley, Herts, Feb. 11th, 1874. CHARLES WOTTON.

Mr. Robert N. Ingle.—The restrictions in regard to the visits of patients may be a fair subject for discussion, perhaps for complaint. But the letter in the *Salford Chronicle* seems to us altogether to exceed the limits of propriety, and the publication of it to be a grave offence against our correspondent, in regard to which he should consult not us, but his lawyer.

Ten Years' Subscriber.—We cannot readily answer the question. The office of special constable is usually of a voluntary nature, and we do not remember a case in which a person was forced to serve by compulsion.

Mr. Chas. Wotton is thanked.

A REMARKABLE CASE.

To the Editor of THE LANCET.

SIR,—Your readers may possibly feel interested in the following remarkable case.

Sophia R——, aged seventeen, very stout and tall, a servant girl, on New Year's Day last swallowed a needle. She experienced no ill-effects from it until a few days ago, when a jerking motion of both arms towards each other was felt, at first slightly, but soon it increased to such a degree as to oblige her to leave her situation. She applied to me on Saturday, the 7th inst., when her appearance was most singular and distressing. Every instant the spasmodic motions continued, shaking her whole frame to a degree that caused her much inconvenience. The unnatural movements are much abated by the horizontal posture, and do not therefore materially disturb her rest, but immediately recommence on arising, and are worse in the standing than the sitting position. Large doses of chloroform, hyoscyamus, and camphor gave her great relief for a time, which, however, passed off with the medicine. She complained of a pain in the centre of the spine, about the size of a five-shilling piece, just opposite the ninth dorsal vertebra. Attracted by this, I was led to use pressure on the part, and when this was exerted to a certain degree all the symptoms entirely subsided, the spasmodic twitching at once ceasing; but on relaxing the pressure they again returned. I tried this several times, with the same result, the involuntary movements being perfectly controllable by the pressure. On closer examination I found this improvement was produced by pressure on the spine of the ninth dorsal vertebra only, and not so perfectly when employed on either of those adjoining. I have formed the opinion, right or wrong, that the needle is the cause of all this mischief; that, having penetrated the coats of the stomach, it has taken a backward course; and that its point has entered through or between some of the spinal ligaments, and is at present irritating the membranes of the cord, or possibly touching the surface of the medullary tissue; the pressure in some way preventing or relieving the propinquity of the foreign body to the vital parts, thereby relaxing the spasm.

I shall watch the case with great interest, and communicate to you the result if she continues under my care.

I am, Sir, yours obediently,

Queen's-road, Peckham, Feb. 9th, 1874. HENRY BATE, M.R.C.S.

Dr. Carmichael (Bedlington) and other correspondents are informed that "Cooper's Salts" are to be obtained of Messrs. Grindlay & Co., Poplar, E.

Dr. Groves.—We regret that in consequence of the pressure on our space we are compelled to hold over the matters relating to the health of Rome.

THE WEBB FUND.

THE following additional contributions have been received by Mr. Augustus Churchill, the Treasurer, to the 11th inst.:—

Dr. Peregrine	£5	5	0	A Friend	£5	5	0
Sir William Gull...	10	10	0	A Friend	5	0	0
Dr. E. Norton	1	1	0	Dr. Semple	5	5	0
A Friend	3	3	0	Mr. G. Peabody Russell ...	5	5	0
J. W.	5	0	0	Mr. Jacques Blumenthal ...	5	0	0
Mr. Andrew Murray	10	0	0	Rev. G. A. Whitaker	1	1	0
R. B. R...	5	0	0	A Friend	3	0	0
Mr. W. F. Teevan	2	2	0	A Friend	1	0	0
Dr. Burney Yeo	2	2	0	Messrs. R. & J. Hewetson .	2	2	0
Mr. R. Stocker	5	0	0	Mr. C. D. Hollins	2	0	0
Dr. C. B. Sewell	10	10	0	Captain Cahill	1	1	0
Mr. Barnard Holt	10	10	0	Mr. James Coates	5	5	0
Mr. W. Hopkinson	5	0	0	Mr. Charles Gatty	5	0	0
Mr. J. S. F. Pechey	1	1	0	Baron Schröder	5	5	0
Mr. F. Hurt...	1	1	0	Mr. John Hartley	5	0	0
Mr. J. Aste	2	2	0	Dr. Jeffson	2	2	0
Mr. E. Sharpe	2	2	0	Mr. E. H. Bradley	3	3	0
Mr. S. Taylor	2	2	0	Mr. B. Shillitoe	3	3	0
Mr. C. Hopkinson	10	10	0		169	8	0
Mr. W. Cattlin	5	5	0				
Dr. Jopp	10	0	0	Amount previously acknowledged	1011	18	6
A Friend	5	0	0				
S. E. M....	5	5	0	Total	£1201	6	6
Miss Salt	5	0	0				

Mr. W. R. Simpson, (Edinburgh.)—The paragraph cannot be inserted unless something be known of the merits of the case.

A Senior Fellow.—Next week.

THE TREATMENT OF CHOLERA BY CALOMEL.

To the Editor of THE LANCET.

SIR,—Seeing a letter in your last number from Dr. Gabriel, R.N., on the above subject, I can vouch for his statement.

In a case occurring at Fort Cumberland, where I had the pleasure of serving in 1849 or 1850 with the Royal Marine Artillery, cholera was introduced into the fort by a person who came from London, where cholera was prevailing at the time. I tried many remedies; but found the most successful to be three grains of calomel given in a little white sugar every ten or fifteen minutes. After some hours I had the gratification to find bilious stools instead of rice-water; the kidneys acting well. There was, however, some febrile reaction; but I think no salivation. The case was reported at the time in the medical journals.

I remain, Sir, your obedient servant,

J. D. CRONIN, M.D.,

Queenstown, Feb. 10th, 1874. Staff Surgeon R.N. (Retired).

Iota, (Lancaster.)—The particulars afforded are insufficient to warrant us in giving a positive opinion on the matter referred to. On the general question we think there is ample evidence to prove that hard work *per se* does not shorten life, provided such work be carried out under fair conditions as to rest and food.

Dr. Duffy (Dublin) is thanked for his courteous note.

HYDROPHOBIA AND RABIES.

To the Editor of THE LANCET.

SIR,—The Hon. Grantley Berkeley's letter in your last number caused me to read carefully the article on Hydrophobia in THE LANCET of the 31st ult. I confess I do not think he has drawn a correct inference from it when he says that "you have shown that a dog may be 'mad,' yet not mad from the deadly disease of hydrophobia." His next assertion, that "the patients whom the dog has bitten need not have resorted to any remedy of any kind," shows clearly that he has misunderstood your paragraph altogether. Although you have not contradicted this, I cannot think you would advise a person to forego his only chance of safety unless *positively certain* of the diagnosis. The dog referred to ran a-muck at Huddersfield, biting six persons. It was killed, and a pin found imbedded in the coats of the stomach. You remark on this that it "is possible that the dog's violence was due solely to irritation, and not to rabies." This suggestion of possibility is far from the demonstration which Mr. Berkeley assumes you have made. His use of the word "mad" is convenient, but very indefinite. He argues for the existence of two kinds of "madness." Let us discard a word of no pathological exactness. Are there two forms of rabies—one capable of producing hydrophobia, the other not? Certainly not. Rabies is a specific disease, always fatal, and always marked by symptoms sufficiently definite for a proper diagnosis. It, like other diseases, is not broadly marked and distinctly different from all others so that a non-professional man can always diagnose it; but it is certainly distinguishable from any cases of distemper or any symptoms due to mechanical irritation. The presence of a pin or other sharp body in the abdominal viscera of a dog is not such a very rare occurrence; but your article was the first intimation I ever had that such an event might produce symptoms mistakeable for rabies. In fact, I am still unaware of the train of symptoms we might expect in a dog with a pin imbedded in its stomach. That a rabid dog might have a pin in his stomach is extremely likely; for a frequent symptom of the disease is the tendency to pick up and swallow foreign bodies of any sort. The fact that the stomach was empty is also quite compatible with the diagnosis of rabies, as vomition often occurs during its progress. The best test of a dog in the position of that at Huddersfield is its demeanour. Rabid dogs are silent and gloomy on their course of destruction; they snap and may even retain their grip for a short time, but they do not stop to worry. It is to be hoped we may not have the condition of the animal shown too clearly. Cauterisation by nitric acid is, doubtless, very effectual; but what time elapsed before it was done, and what about the sixth person who was not cauterised? If bitten through clothing he may not have been inoculated. If he and others knew the danger they ran from the bite of a strange, wandering dog, they would always adopt preventive measures. If anyone neglect such measures, trusting their diagnosis to the "water test" suggested by Mr. Berkeley, and die in consequence, the hon. gentleman will be morally responsible for their mistake. Better be cauterised unnecessarily a dozen times than neglect it once when the bite is from a really rabid dog.

Your obedient servant,

Derby-street, W., Feb. 11th, 1874. WM. HUNTING, M.R.C.V.S.

To the Editor of THE LANCET.

SIR,—Will you add to the boon you have already conferred on mankind by still further relieving the human race from the needless but horrible dread of hydrophobia when bitten by a "mad dog." Nine hundred dogs in a thousand go mad from internal irritation, the effects of the common distemper. Those mad dogs will lap water greedily, but the hydrophobic dog will not. I commenced my practice in my large kennels of hounds and other dogs on an assurance from the great Dr. Jenner, afterwards confirmed by him to his brother physician, the late Sir Mathew Tierney, in a letter. Dr. Jenner assured us that when he discovered a prevention for the small-pox the same result attended the vaccination of the dog, small-pox and distemper alike deterred by the application from the same source.

Yours, &c.,

Poole, Feb. 8th, 1874. GRANTLEY F. BERKELEY.

A Village Surgeon may obtain the information by consulting Dr. Swete's Handy Book on Cottage Hospitals, published by Hamilton, Adams, and Co., Paternoster-row.

Mr. Joaffreson's letter shall receive attention.

Dr. T. Bishop.—The Body in question does not readily entertain such charges, and the case should be very clear. The time of meeting is not yet fixed.

THE C.M. DEGREE AS A SURGICAL QUALIFICATION.

THIS degree is recognised by law and by the Local Government Board as a qualification in Surgery, and is a very good degree.

Mr. Joyce, (Cranbrook.)—Yes.

HEALTH OFFICER AT TAUNTON.

To the Editor of THE LANCET.

SIR,—Will you allow me to correct an error in your issue of Jan. 31st. You there stated that Dr. Dickinson, of Uffculme, had been appointed medical officer of health for Taunton, and was to be paid by fees. Your remarks must apply to some other town; for I was appointed medical officer of health for the combined rural and urban districts of Taunton in February, 1873, at a salary of £600 per annum.

I am, Sir, your obedient servant,

Taunton, Feb. 10th, 1874. HENRY J. ALFORD, M.D. Lond.

M.R.C.S., &c.—Such a man is recommended not to sign a death certificate; but, unless he uses false titles, we are not aware of any law by which he can be punished. When certificates come from such persons, the registrar is instructed to mark the deaths as uncertified.

Dr. Lowndes (Liverpool) is thanked.

W. L.—Similar cases to our correspondent's are not unfamiliar to dentists. Such sensations as he describes are apparently sometimes produced by galvanic action generated by the union of two metals in the same plate. We should recommend a trial of pure gold or of black vulcanite.

Mrs. H. Gidney should consult a medical practitioner.

Dr. Hawkes's letter shall receive attention.

APPEAL FOR MR. JACKMAN.

To the Editor of THE LANCET.

SIR,—Pray accept our warmest thanks for so kindly inserting an appeal for poor Mr. Jackman, who truly deserves sympathy. We have received the enclosed list of subscriptions, which perhaps you would be kind enough to acknowledge in your next impression. The appeal appeared in THE LANCET of Jan. 24th.

Sums under one pound received in the district	£6	18	0
H. T. Sylvester, M.D.	5	0	0
J. N. P. Note, Esq., Bydown	3	3	0
T. Law, M.D., Barnstaple	3	3	0
H. Kinglake, M.D., Taunton	3	3	0
J. Smyth, Esq., Swymbridge	2	2	0
Sir Wm. Jenner, M.D., London	2	2	0
Dr. Shapter, Exeter	2	2	0
T. Smyth, Esq., London	2	2	0
James Ford, M.D., Dolton	2	2	0
Rev. John Russell, Swymbridge	1	1	0
James Duncan, M.D.	1	1	0
T. Carr Jackson, M.D.	1	1	0
Dr. Walshe, London	1	1	0
Ed. B. Gray, Esq., Oxford	1	1	0
H. Morgan, Esq., Lichfield	£1	1	0
E. Nason, Esq., Bampton	1	1	0
Dr. Prance, Plymouth	1	1	0
Rev. R. K. Kestell, Cornish Landkey	1	0	0
T. Mock, Esq., Barnstaple	1	0	0
S. C. Gray, Esq., Oxford	1	0	0
J. Q. Tamlyn, Esq., Horswell	1	0	0
S. J. Noake, Esq.	0	10	6
Sydney Ringer, Esq.	0	10	0
A Brother Practitioner	0	10	0
Rev. A. W. Loveband, Pilton	0	10	0
Richard Green, Esq.	0	10	0
In small sums of five shillings and under	1	8	0
Total	£48	3	6

Yours very truly,

JOSEPH READ,
Curate of Swymbridge.

Swymbridge, Barnstaple, Feb. 7th, 1874.

ERRATUM.—In our report last week of the meeting of the Royal Medical and Chirurgical Society, Dr. Buzzard is made to say that he had given "children about nine years of age a drachm of the succus comi three times a day," but had "never exceeded one ounce and a half a day." It should have been that "he had very frequently given children about nine years of age from an ounce to an ounce and a half of the succus three times a day without any physiological effect being produced."

COMMUNICATIONS, LETTERS, &c., have been received from — Dr. B. Hicks, London; Dr. Wilks, London; Dr. Donnet, Haslar Hospital; Mr. Gamgee, Birmingham; Dr. Thin, London; Mr. Joyce, Cranbrook; Mr. Eastes, London; Mr. Morris, London; Mr. Crackle, Nottingham; Mr. Fosbroke, Redditch; Mr. Stewart, South Africa; Dr. Ralfe, London; Mr. Hastings, Boston, U.S.; Rev. J. Reed, Swymbridge; Mr. Burroughs, Bridgwater; Dr. Vaughan, Philadelphia; The Hon. Grantley Berkeley; Mr. Jeaffreson, Newcastle; Dr. Morehead, Edinburgh; Dr. Gill, Dover; Dr. Woodward, Worcester; Dr. Cory, Buckhurst Hill; Dr. Cobbold, London; Dr. M'Nab; Mr. Booth, Barrow-in-Furness; Rev. A. J. D'Orsey, London; Miss Smith, Edinburgh; Mr. Evans, Hillside; Mr. Chambers, Edinburgh; Mr. Gent, Brill; Mr. Akerman, London; Dr. Gillard, Wallingford; Dr. Heffernon, Spenny Moor; Mr. Evans, West Bromwich; Mr. Filey, Lamberhurst; Mr. Spicer, East Molesey; Mr. James, Taibach; Mr. Simpson, Edinburgh; Mr. Bolton, Ipswich; Mr. Brown, Manchester; Mr. Mears, Teignmouth; Mr. Gillies, London; Dr. Langley, Worksop; Mr. Prowse, Wootton; Mr. Moore, Worcestershire; Mr. Hawkes, Alton; Mr. Kershaw, Farnworth; Mr. Blakenay, Roscommon; Mr. Wotton, Kings Langley; Mr. Lownes, Liverpool; Mr. Edge, Manchester; Dr. T. Bishop, Banbury; Dr. Cronin, Queenstown; Mr. Hunting, London; Dr. Alford, Taunton; Mr. Hogg, Manchester; Mr. Pike, Exeter; Dr. Colan, Cape of Good Hope; Dr. Carmichael, Bridlington; Mr. Watson, Norwich; Mr. Bogg, Louth; Mr. Batcher, Stratford St. Mary; Mr. Irvine, Ingleton; Mr. Coleman, Blackheath; Mr. Rouse, Taunton; Mr. Piggott, Cambridge; Mr. Rigden, Canterbury; Mr. Smith, Bedford; Mr. Cassells, Glasgow; Dr. Jay, Chippenham; Dr. Bodington, Kingswinford; Mr. Pitts, Hemel Hempstead; Mr. Kerbey, Weobley; Mr. Ellis, Chudleigh; Mr. Kempthorne, Callington; Dr. Palfrey, London; Mr. Deans, Landford; Mr. Whiteley, Leeds; Mr. Taplin, Boston; Mr. Wagstaffe, Goole; Mr. A. De Burnardy, London; Dr. Duffy, Dublin; Mr. Barlow, Cambridge; Mr. Jackson, Birkenhead; Mr. Cane, London; Mr. Gowing, Daventry; Mr. Bate, London; Dr. Pratt, Cardiff; Mr. Gidney, Kingston; Dr. Megget, Scarborough; Mr. Davison, Newcastle-on-Tyne; Dr. Black, Glasgow; Captain Hay, Wolverhampton; Mr. Davies, Llangbyther; Mr. Jarman, Rhayader; Mr. Birchall, Leeds; Dr. Waller, Peterborough; Mr. Buckle, London; Mr. Faulkner, London; Mr. Logg, Oudh; Mr. Langston, Strood; Mr. Doyle, Colne; Mr. Kemm, Corsham; Mr. Binney, Manchester; Mr. Whitmore, Dursley; Mr. Barston, Halifax; Mr. Edwardes, London; Dr. Hills, Clontarf; Mr. Johnstone, Alton; Mr. Hawkins, Littlehampton; Mr. Healey, London; Mr. George, Cheltenham; Dr. Davey, Ryde; Dr. Drewry, Walsall; Dr. Lush, Weymouth; Mr. Horton, Dudley; Mr. Cooke, Aldridge; Mr. Willis, Hornsey; Mr. Fox, Bristol; Mr. Williams, Rhymney; Mr. Barker, Stoke-on-Trent; Dr. Sergeant, Warboys; Mr. Macaulay, Halifax; Mr. Bousfield, Thetford; Mr. O'Brien, Starcton; Mr. Masters, Thrapstone; Mr. Wykes, Shaftesbury; Mr. Whitwell, Bristol; Mr. Parry, Ferndale; Mr. Bredin, Tunbridge; Mr. M'Donald, Rathe; Dr. Quinlan, Dublin; Messrs. Coxeter; Miss Bromley; The Director-General of the Army Medical Department; Royal Institution; X.; Medical Club; J. F. B.; The Registrar-General; A Ten Years' Subscriber; The Director-General of the Navy; P. Q.; &c.

Medical Diary of the Week.

Monday, Feb. 16.

ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS.—Operations, 10½ A.M.
ROYAL WESTMINSTER OPHTHALMIC HOSPITAL.—Operations, 1½ P.M.
GUY'S HOSPITAL.—Operations on the Eye, 1½ P.M.
ST. MARK'S HOSPITAL.—Operations, 9 A.M. and 2 P.M.
METROPOLITAN FREE HOSPITAL.—Operations, 2 P.M.
ST. PETER'S HOSPITAL.—3 P.M. Expected Operations: Two Cases of Lithotrity.
ROYAL COLLEGE OF SURGEONS OF ENGLAND.—4 P.M. Mr. W. K. Parker, "On the Structure and Development of the Skull in the Vertebrata."
MEDICAL SOCIETY OF LONDON.—8 P.M. Dr. Cotton will exhibit a Steam Kettle for use in Pulmonary Affections. — Mr. Jabez Hogg, "On a Case of Hemiopia." — Mr. F. J. Gant, "On Strangulated Femoral Hernia."— Dr. Farquharson, "On some Peculiarities of Pneumonia in Early Life."

Tuesday, Feb. 17.

ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS.—Operations, 10½ A.M.
ROYAL WESTMINSTER OPHTHALMIC HOSPITAL.—Operations, 1½ P.M.
GUY'S HOSPITAL.—Operations, 1½ P.M.
WESTMINSTER HOSPITAL.—Operations, 2 P.M.
NATIONAL ORTHOPÆDIC HOSPITAL.—Operations, 2 P.M.
WEST LONDON HOSPITAL.—Operations, 3 P.M.
ROYAL INSTITUTION.—3 P.M. Prof. Tyndall, "On the Physical Properties of Liquids and Gases."
PATHOLOGICAL SOCIETY OF LONDON. — 8 P.M. The following Preparations will be exhibited:—Extensive Atheroma of Pulmonary Artery, with Mitral Stenosis; Dissecting Aneurism; Typhoid Perforation of the Bowel; Tumour which was attached to the Cervical Vertebræ; Congenital Papillomatous Web uniting the Vocal Cords, Removal per vias naturales, and Establishment of Voice; Tuberculosis of the Choroid; Hydatids of the Spermatic Cord; Aneurism of the Aorta opening into the Pulmonary Artery; Aneurism of the Aorta which burst into the Pericardium; Ovarian Tumour affected by Secondary Cancer; Dermoid Ovarian Cyst; &c.

Wednesday, Feb. 18.

ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS.—Operations, 10½ A.M.
MIDDLESEX HOSPITAL.—Operations, 1 P.M.
ST. MARY'S HOSPITAL.—Operations, 1½ P.M.
ROYAL WESTMINSTER OPHTHALMIC HOSPITAL.—Operations, 1½ P.M.
ST. BARTHOLOMEW'S HOSPITAL.—Operations, 1½ P.M.
ST. THOMAS'S HOSPITAL.—Operations, 1½ P.M.
KING'S COLLEGE HOSPITAL.—Operations, 2 P.M.
GREAT NORTHERN HOSPITAL.—Operations, 2 P.M.
UNIVERSITY COLLEGE HOSPITAL.—Operations, 2 P.M.
LONDON HOSPITAL.—Operations, 2 P.M.
SAMARITAN FREE HOSPITAL FOR WOMEN AND CHILDREN.—Operations, 3½ P.M.
CANCER HOSPITAL.—Operations, 3 P.M.
ROYAL COLLEGE OF SURGEONS OF ENGLAND.—4 P.M. Mr. W. K. Parker, "On the Structure and Development of the Skull in the Vertebrata."

Thursday, Feb. 19.

ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS.—Operations, 10½ A.M.
ST. GEORGE'S HOSPITAL.—Operations, 1 P.M.
ROYAL WESTMINSTER OPHTHALMIC HOSPITAL.—Operations, 1½ P.M.
UNIVERSITY COLLEGE HOSPITAL.—Operations, 2 P.M.
ROYAL ORTHOPÆDIC HOSPITAL.—Operations, 2 P.M.
CENTRAL LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M.
ROYAL INSTITUTION.—3 P.M. Prof. P. M. Duncan, "On Palæontology, with reference to Extinct Animals and the Physical Geography of their Time."
HARVEIAN SOCIETY OF LONDON.—7½ P.M. Adjourned Meeting of Council.—8 P.M. Mr. H. E. Sewill, "On Neuralgia of the Face."

Friday, Feb. 20.

ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS.—Operations, 10½ A.M.
ST. GEORGE'S HOSPITAL.—Ophthalmic Operations, 1½ P.M.
ROYAL WESTMINSTER OPHTHALMIC HOSPITAL.—Operations, 1½ P.M.
GUY'S HOSPITAL.—Operations, 1½ P.M.
ROYAL SOUTH LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M.
CENTRAL LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M.
ROYAL COLLEGE OF SURGEONS OF ENGLAND.—4 P.M. Mr. W. K. Parker, "On the Structure and Development of the Skull in the Vertebrata."
ROYAL INSTITUTION.—6 P.M. Weekly Evening Meeting.—9 P.M. Mr. Vernon Heath: "The Autotype and other Photographic Processes and Discoveries."
HUNTERIAN SOCIETY.—6 P.M. Dinner at the Albion Tavern.

Saturday, Feb. 21.

HOSPITAL FOR WOMEN Soho-square.—Operations, 9½ A.M.
ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS.—Operations, 10½ A.M.
ROYAL WESTMINSTER OPHTHALMIC HOSPITAL.—Operations, 1½ P.M.
ST. BARTHOLOMEW'S HOSPITAL.—Operations, 1½ P.M.
KING'S COLLEGE HOSPITAL.—Operations, 1½ P.M.
ROYAL FREE HOSPITAL.—Operations, 9 A.M. and 2 P.M.
CHARING-CROSS HOSPITAL.—Operations, 2 P.M.
ROYAL INSTITUTION.—3 P.M. Mr. R. Bosworth Smith, "On Mohammed and Mohammedanism."

TERMS FOR ADVERTISING IN THE LANCET.

For 7 lines and under	£0	4	6	For half a page	£2	12	
For every additional line	0	0	6	For a page	5	0	0

The average number of words in each line is eleven.

Advertisements (to ensure insertion the same week) should be delivered at the Office not later than Wednesday; those from the country must be accompanied by a remittance.

Agent for the Advertising Department in France—
Mons. DE LOMINIE, 208, Rue Grenelle St. Germain, Paris.

BEST COPY A